

**WHEN LEADERSHIP IS IN THE EYE OF THE FOLLOWER:  
HOW FOLLOWERS' CORE SELF-EVALUATIONS INFLUENCE  
THE PERCEPTION OF TRANSFORMATIONAL LEADERSHIP  
AND INDIVIDUAL OUTCOMES**

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“For there is nothing either good or bad, but thinking makes it so.”

Hamlet quote by William Shakespeare (Act II - Sc. II)

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### **Abstract**

The aim of this dissertation project was to reverse the traditional leader-centered position by asking: Do followers' personality traits, namely, core self-evaluations, influence the perception of transformational leadership and followers' outcomes?

Study 1 (Chapter 2) provided a valid German-language Core Self-Evaluations Scale (G-CSES; Heilmann & Jonas, 2008). Individuals scoring high on G-CSES reported higher overall job satisfaction and higher life satisfaction. Furthermore, G-CSES was in part incrementally valid over and above the Big Five trait neuroticism.

Study 2 (Chapter 3) tested a model that assumed that the influence of followers' core self-evaluations on outcomes such as job satisfaction is partially mediated by perceived transformational leadership. The results supported the postulated overall partial mediation model. Followers scoring high on core self-evaluations perceived leaders as transformational; followers scoring low on core self-evaluations did not. Furthermore, followers having high core self-evaluations showed higher job satisfaction than followers with low core self-evaluations.

The results of the studies have important implications for transformational leadership theory and practice. First, with regard to research, this dissertation shed light on the issue that the perception of transformational leader behaviors and individual outcomes is related to followers' core self-evaluations. Second, and as a consequence for practitioners in leadership positions, the findings may provide useful thought-provoking impetus: Leaders might want to adjust their leadership behaviors according to their followers' personality. Transformational leadership training programs that include a focus on the CSE construct could raise leaders' awareness of their followers' CSE in order to react more effectively.

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# 1

## Introduction

Over the past two decades, researchers studying leadership have been most interested in transformational leadership theory (Avolio, 2007; Judge, Woolf, Hurst, & Livingston, 2006). A review of the literature reveals that research in this promising field has focused mainly on the leader (Bono & Judge, 2004; Felfe & Schyns, 2006; Judge et al., 2006). Researchers concentrated on specific traits that differentiate transformational leaders (effective) from non-transformational leaders (less effective). This is an approach in the tradition of Carlyle's (1907) seminal great man theory of 100 years ago. However, leadership implies an interaction between leaders and followers (Gardner & Avolio, 1998). How much research has been published in the field of transformational leadership that focuses on followers and their perceptions? A look at previous publications reveals that followers are obviously nonexistent or passive in the research on what constitutes transformational leadership (Avolio, 2007). There are only four published, thematically and qualitatively heterogeneous empirical studies in this field that examine followers' personality traits influencing the perception of transformational leadership (Dvir & Shamir, 2003; Ehrhart & Klein, 2001; Felfe & Schyns, 2006; Wofford, Whittington, & Goodwin, 2001). In short, the current transformational leadership research situation can be best described as this: The follower "remains an underexplored source of variance" (Lord, Brown, & Freiberg, 1999, p. 167).

The introduction (Chapter 1) will provide a review of transformational leadership. I will begin with a general definition of leadership, followed by a brief overview of the historical approaches of leadership research up to the introduction of transformational and transactional leadership theory in the field of leadership research. After that I describe transformational and transactional leadership theory and then focus on transformational leadership, its dimensions, and its specific effects as compared to transactional leadership.

Afterwards, I provide information about the measurement and effectiveness of transformational leadership, followed by a critical comparison of transformational leadership and other “new leadership” (Bryman, 1993, p. 111) theories, such as charismatic leadership (House, 1977) or ethical leadership (Brown, Treviño, & Harrison, 2005). In addition, I give an overview of the relationship of personality and transformational leadership. I present different research areas, while taking up and connecting several theories, assumptions, results, and implications that serve as the theoretical background and as the background for the development of hypotheses on a deductive and partly exploratory basis.

In Chapters 2 and 3, I report the tests of hypotheses, following the publication requirements of the American Psychological Association (2002). For this reason, each of these two chapters has distinct sections (introduction, method, results, and discussion).

Chapter 4 presents a summary of the main results of this dissertation project and an overall discussion of the findings presented in the two studies and, finally, an overall conclusion and outlook for further research.

### **A Definition of Leadership**

Before presenting the theoretical background, I would like to describe what leadership means. Generally, leadership is one of the topics that have long excited interest not only among researchers. However, a precise definition of the term leadership seems difficult. Bennis (1959) describes the situation somewhat pessimistically, when saying that “the concept of leadership eludes us or turns up in another form to taunt us again with its slipperiness and complexity” (p. 259). Bass (1990) concludes, after reviewing the leadership literature in depth, that “there are almost as many definitions of leadership as

there are persons who have attempted to define the concept” (p. 11). Just two but obviously different example definitions of what leadership is will make this circumstance clear. According to Hemphill and Coons (1957), leadership is “the behavior of an individual [...] directing the activities of a group [...]” (p. 7). Unlike Hemphill and Coons (1957), Burns (1978) says that “leadership is exercised when persons [...] mobilize [...] institutional, political, psychological, and other resources so as to arouse, engage, and satisfy the motives of followers” (p. 18). The list of different leadership definitions and descriptions is long (e.g., House, Hanges, Javidan, Dorfman, & Gupta, 2004; Katz & Kahn, 1978; Schein, 1992). But what all of the definitions, like those cited, reflect is that researchers differ in their conceptions depending on the research focus within the leadership phenomena. However, despite all the differences and dissension when attempting to define what leadership means, all of the existing definitions of leadership have commonalities. In my opinion, after reviewing the literature, Bass (1990) in his seminal work best integrated most of the different views in a broad working definition:

Leadership is an interaction between two or more members of a group that often involves a structuring or restructuring of the situation and the perceptions and expectations of the members. Leaders are agents of change – persons who affect other people more than other people affect them. Leadership occurs when one group member modifies the motivation or competence of others in the group. (p. 19)

This working definition leads in well to the concept of transformational leadership, which is the basis for this dissertation (Bass, 1985; Bass & Avolio, 1994). However, before

examining the transformational leadership concept in detail, I will give a brief historical overview of a selection of the most prominent leadership theories of different research approaches. The idea is to present classical approaches and theories that either are related to transformational leadership theory and today's research (including this dissertation project) or were conceptual progenitors and contributors of ideas for the development of transformational leadership theory.

### **Traditional Leadership Research Approaches**

In the last 60 years, an overwhelming amount of literature has been produced in the field of leadership (e.g., Bass, 1990) with various research foci, such as effective leadership behaviors (e.g., Fleishman et al., 1991) or traits of leaders (e.g., Judge, Bono, Ilies, & Gerhardt, 2002). Yukl (2002) provides a clear and simple classification of five overall approaches in leadership research, classifying leadership research and theories as the following five approaches: 1) the trait approach, 2) the behavior approach, 3) the power-influence approach, 4) the situational approach, and 5) the integrative approach. A selection of prominent, historical leadership theories within the trait, behavior, and situational approaches will be described in brief in this introduction. They will be presented in chronologically order and within these three major categories. The power-influence approach (e.g., French & Raven, 1959) will not be presented, because it focuses on the amount and type of power possessed by a leader and how power is exercised. The integrative approach corresponds to new leadership theories (Bryman, 1993), such as transformational leadership (Bass, 1985). Detailed information on transformational leadership and other new leadership theories will be provided in a later section.

*Trait Approach*

What personality traits distinguish leaders from other people? Researchers have had a long and strong interest in the dispositional bases of leadership behavior (e.g., Bass, 1990). It started about 100 years ago with Carlyle (1907), who stated that “the history of the world was the biography of great men” (as cited in Judge et al., 2002). This “great man” hypothesis triggered the personality research of leadership, especially in the 1930s and 1940s, as the review by Bass (1990) shows. However, the results of investigations relating personality traits and leadership were inconsistent and often disappointing for a long time (e.g., Stogdill, 1948). It seemed that personality research with focus on leadership was about to disappear (Judge et al., 2002). According to House and Aditya (1997), one of the problems of early trait research was that the search for leadership traits was not theory-driven. Furthermore, there seemed to be a labeling dilemma that made it almost impossible to find consistent relationships between personality and leadership (e.g., Judge et al., 2002). Just a “few of [the studied traits] recurred consistently across studies” (Anderson & Schneier, 1978, p. 690). In line with several meta-analytical results (e.g., Kirkpatrick & Locke, 1996b; Lord, De Vader, & Alliger, 1986; Lord & Hall, 1992), House and Aditya (1997) wrote, that “there were few, if any, universal traits associated with effective leadership” (p. 410). Based on that, House and Aditya (1997) stated, that “among the community of leadership scholars [there was nearly] consensus that the search for universal traits was futile” (p. 410). However, personality research on leaders has recently gained enormous ground (De Hoogh, den Hartog, & Koopman, 2005) due to promising efforts to structure previous results (e.g., Judge et al., 2002) within the framework of the widely used five-factorial model of personality, the so-called Big Five (e.g., Costa & McCrae, 1992; Digman, 1990; Goldberg, 1990), with traits such as extraversion or neuroticism (Eysenck,



1947). The trait approach is a fruitful one in transformational leadership research as will be described later. Due to its relevance for the development of hypotheses in this dissertation, a section provided further below in the introduction takes up the subject of traits again and deals with it in greater detail.

### *Behavior Approach*

The behavior approach had its beginnings in the early 1950s, after many researchers became disappointed with the discouraging results from studies investigating leadership traits. Whereas the trait approach, as mentioned above, focuses on personality traits of leaders, the behavior approach emphasizes the behavior of leaders – that is, what leaders actually do on the job and how they act. Specifically, the Ohio State Leadership Studies led by the researchers Stogdill, Shartle, and Hemphill studied effective leadership behavior (Stogdill, 1950). This research group influenced and dominated the research on leader behavior (Judge, Piccolo, & Ilies, 2004) up to the introduction of transformational leadership theory (Bass, 1985; Burns, 1978; House, 1977). In order to identify relevant leadership behaviors, the Ohio State researchers developed a list of about 1,800 statements of leadership behaviors and reduced them to a list of 150. This list was the basis for the seminal Leader Behavior Description Questionnaire (LBDQ; Hemphill & Coons, 1957). Two factors were identified (Fleishman, 1953; Hemphill & Coons, 1957; Halpin & Winer, 1957): consideration and initiating structure. Consideration behaviors are essentially relationship behaviors such as being friendly and supportive, building respect, trust and liking between leaders and followers. Initiating structure implies behaviors such as organizing work, giving structure to the work context, defining roles and responsibilities, and scheduling work activities. Other researchers brought up very similar ideas. For

example, the Michigan State leadership studies (Katz, Maccoby, & Morse, 1950) found two types of behavior that they named relations-oriented behavior and task-oriented behavior. Blake and Mouton (1964) developed the managerial grid theory to describe managers in terms of concern for people and concern for production. However, in theory and practice, consideration and initiating structure “have been proven to be among the most robust of leadership concepts” (Fleishman, 1998, p. 51) compared to similar leadership behavior conceptions. Consideration and initiating structure seem to be conceptual progenitors of transformational and transactional leadership, as they share basic conceptual similarities. However, as I will show in greater detail later, transformational leadership especially comprises different dimensions and extends the Ohio State leadership conceptions. At this point, a comparison between consideration, initiating structure, and transformational leadership reveals that adding the transformational leadership scales to the scales for initiating structure and consideration increases substantially the prediction of outcomes such as ratings of leaders’ effectiveness (Seltzer & Bass, 1990).

### *Situational Approach*

In the 1970s, researchers focused on identifying situational factors that influence leadership processes, such as aspects of the situation that moderate the relationship between leadership (e.g., leader behavior) and leadership outcomes. One classical situational theory, next to models such as Fiedlers’s contingency model (1967) or the decision-making model by Vroom and Yetton (1973), is the path-goal theory of leadership by House (1971, 1996). The path-goal theory can be viewed as the situational theory that contributed ideas in the development of transformational leadership theory, such as the role of motivation in leadership. According to House (1971), the “motivational function of the leader consists of

increasing personal payoffs to subordinates for work-goal attainment and making the path to these payoffs easier to travel by clarifying it, reducing roadblocks and pitfalls, and increasing the opportunities for personal satisfaction en route” (p. 324). In line with this theory, leader behaviors that affect followers’ efforts are providing coaching, guidance, and the rewards necessary for satisfaction and effective performance, and these rewards should be awarded contingent on effective performance (Mitchell, 1979). Furthermore, leadership depends on situational variables such as task or followers’ characteristics (House, 1996). Similar to the Ohio State leadership conception, two leadership behaviors were defined, supportive leadership (similar to consideration) and directive leadership (similar to initiating structure). A later version of the theory (House & Mitchell, 1974) added two other leadership behaviors, that is, participative and achievement-oriented leadership, where participative leadership means consulting with followers and taking their opinion into account, and achievement-oriented leadership implies behaviors such as setting challenging goals. In sum, these four leadership behaviors seem to be similar to those in transformational and transactional leadership theory, as presented in the next section. However, meta-analyses by Wofford and Liska (1993) showed that the results of the majority of tests of the path-goal theory are mixed or non-supportive, whereas the support for transformational leadership in particular is impressive, as the following sections will show.

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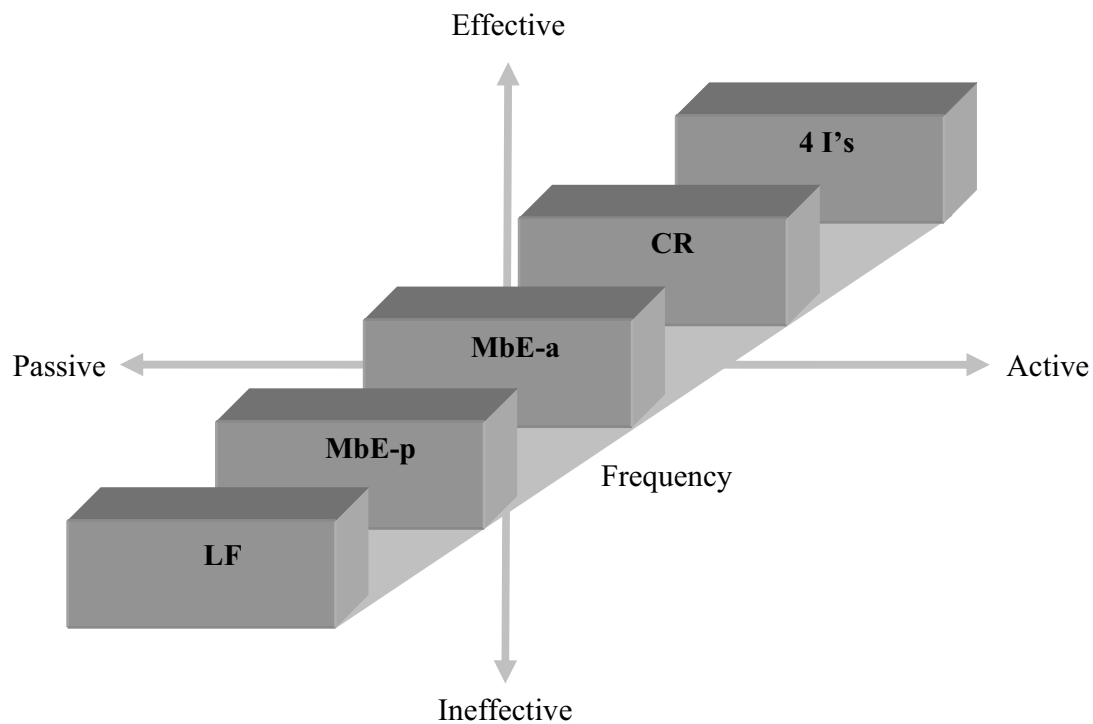
### **Transformational and Transactional Leadership Theory**

In the past 23 years, a substantial body of research on the theory of transformational and transactional leadership has grown. Based on Burns (1978) and House (1977), Bass (1985) provided a distinction of transformational and transactional leadership. Transformational leaders motivate followers to do more than the followers originally expected to do (Bass, 1985); they enlarge employees' scope and create acceptance for the group mission, which results in extra effort on the part of employees. Transformational leaders' behaviors affect followers' effort, performance, and satisfaction by raising their self-efficacy and self-esteem (Conger & Kanungo, 1998; Kark, Shamir, & Chen, 2006; Kirkpatrick & Locke, 1996a; Shamir, House, & Arthur, 1993) and locus of control (Bass, 1985) through expressing high expectations of followers and belief in followers' abilities. Transactional leadership aims at monitoring and controlling employees through rational or economic means, operating with existing structures and systems. According to Bass, transformational and transactional leadership are separate concepts, and the best leaders are both transformational and transactional. Bass and Avolio (1994) elaborated considerably on the behaviors that manifest transformational and transactional leadership. They specified those leadership behaviors in the full range leadership model.

#### *The Full Range Leadership Model*

The full range leadership model developed by Avolio and Bass (1991) comprises both transformational and transactional leadership. According to Bass (1985), *transformational leadership* is accomplished through four dimensions, referred to as the Four I's. *Idealized influence* refers to serving as a role model to followers. *Inspirational motivation* refers to leaders with a strong vision for the future based on values and ideals.

*Intellectual stimulation* refers to leaders that stimulate followers' creativity by questioning and challenging them. *Individual consideration* refers to the leader, as a coach or consultant, attending to individual needs and developing followers. *Transactional leadership* comprises three dimensions: *contingent reward* (CR), providing resources in exchange for follower support; *management by exception - active* (MbE-a), setting standards and monitoring deviations from these standards; and *management by exception - passive* (MbE-p), taking a passive approach, intervening only when problems become serious. Additionally, this full range leadership model (Avolio & Bass, 1991) includes *laissez-faire* (LF), which is non-leadership, that is the avoidance or absence of leadership. Leaders who score high on laissez-faire leadership avoid making decisions, do not take action, and are not there when needed. Because of its absence of any leadership, laissez-faire is generally treated separately from transformational and transactional leadership (Avolio, 1999; Bass, 1998). Figure 1.1 provides an overview of the full range leadership model. The leadership factors are arranged on the axes effectiveness (ineffective to effective) and involvement (passive to active). Transformational leadership styles are effective and active, whereas transactional leadership is predominantly ineffective and passive. The full range leadership model – that is, its visualization – might suggest that transformational leadership is superior to transactional leadership. However, according to the theory, the two leadership factors complement each other in such a way that transformational leadership adds to the effect of transactional leadership (Bass, 1985; Judge & Piccolo, 2004). This augmentation effect is “fundamental” (Bass & Avolio, 1993, p. 69) for the theory of transformational and transactional leadership.



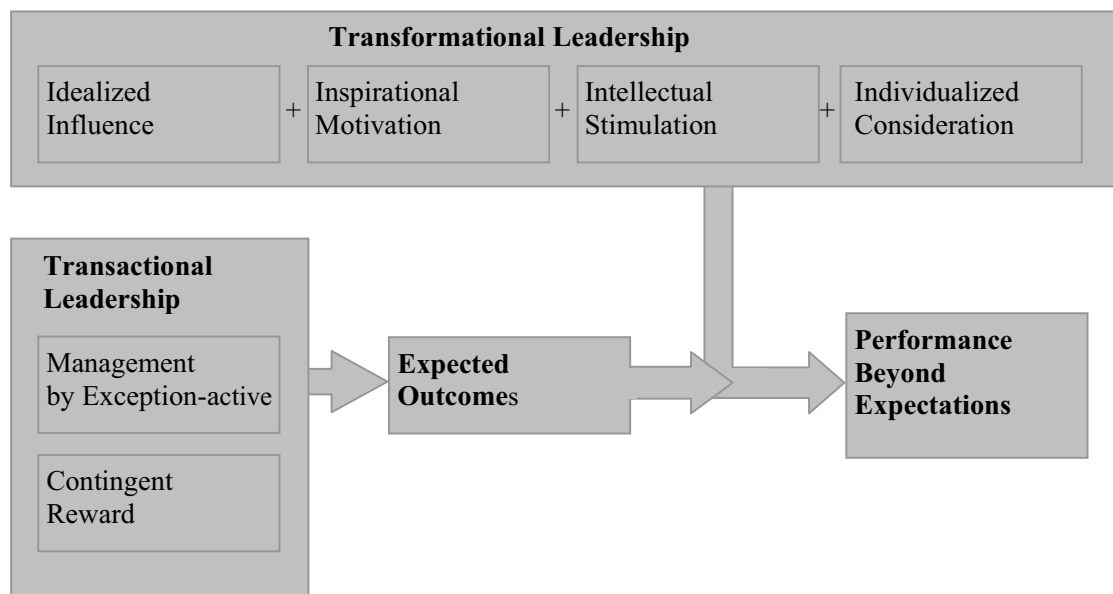
Non-Leadership	Transactional	Transformational 4 I's
LF = Laissez-faire	MBE-p = Management by Exception - passive	Idealized Influence
	MBE-a = Management by Exception - active	Inspirational Motivation
	CR = Contingent Reward	Intellectual Stimulation
		Individual Consideration

Figure 1.1. The full range leadership model (adapted from Bass & Avolio, 1994).

### *The Augmentation Effect*

According to Bass (1998), the augmentation effect is the degree to which “transformational leadership styles build on the transactional base in contributing to the extra effort and performance of followers” (p. 5). That means that “transactions are the basis of transformations” (Avolio, 1999, p. 97). Transactional leadership results in

followers meeting expectations and being rewarded accordingly (Bass, 1985). Transformational leadership is required in order to motivate followers to move, that is to perform beyond expectations, but it “does not substitute for transactional leadership” (Bass, 1998, p. 21). This suggests that the best leaders tend to be both transactional and transformational (Bass, 1985). Conceptually, this means that without the foundation of transactional leadership, transformational effects may not be possible. However, transformational leadership should augment transactional leadership in predicting individual outcomes such as job satisfaction and objective performance measures. Indeed, in statistical terms, transformational leadership does account for unique variance in performance ratings over and above transactional leadership (Judge & Piccolo, 2004). Figure 1.2 illustrates this add-on effect of transformational leadership.



*Figure 1.2.* The add-on effect of transformational leadership (adapted from Bass and Avolio, 1990).

*The Measurement of Transformational and Transactional Leadership*

This section provides a brief overview of the most extensively validated and used measures of transformational leadership and transactional leadership (Felfe, 2006; Judge et al., 2006). The Multifactor Leadership Questionnaire (MLQ) by Bass and Avolio (1990) is used predominately for measurement of the two leadership factors and laissez-faire (non-leadership). Alternative measures exist, such as the Transformational Leadership Inventory (TLI) by Podsakoff, MacKenzie, Moorman, and Fetter (1990), which measures only the four transformational scales. The Transformational Leadership Questionnaire (TLQ) is relatively new and measures nine factors associated with transformational leaders. It is specifically designed for the use in organizations of the British public sector (Alban-Metcalf & Alimo-Metcalf, 2000; Alimo-Metcalf & Alban-Metcalf, 2001). Carless, Wearing, and Mann (2000) developed the Global Transformational Leadership scale (GTL), assessing a single, global construct of transformational leadership with seven items. Conger and Kanungo (1994) developed the CK-Scale measuring a subset of transformational leadership that they call charisma, such as communicating a vision.

The MLQ 5X Short by Bass and Avolio (1995) is the mostly widely used measure of transformational leadership as well as for the other leadership factors described above. This measure contains 45 items. There are 36 items that represent the nine leadership factors described above, and nine items that assess three leadership outcome scales, that is satisfaction with the leader, extra effort and (leader) effectiveness. This measure exists in two versions, the rater form (followers rate their leader) and the leader form (leader's self-rating). There are controversies and criticisms about the relatively high levels of multicollinearity reported among the transformational leadership scales (Avolio, Bass, & Jung, 1999; Felfe, 2006; Heinitz, Liepmann, & Felfe, 2005; Judge & Piccolo, 2004). Some



authors even suggested that the transformational scales do not measure different or unique underlying constructs (Bycio, Hackett, & Allen, 1995; Carless, 1998). This is understandable from a test theoretical point of view. It would be desirable to have orthogonal factors, that are independent constructs. However, the methodologically oriented reviewers (e.g., Heinitz et al., 2005) disregard the theoretical postulates proposed by the “fathers” of transformational leadership. Bass (1985, 1997, 1998) as well as Bass and Avolio (1993, 1994) argued that the transformational factors should be highly interrelated. Theoretically, the transformational factors are expected to be mutually reinforcing. For example, leaders using inspirational motivation raise followers’ self-efficacy, which is in turn reinforced by leaders’ individualized consideration. Nevertheless, both dimensions are seen as distinct constructs. There are some validation studies that supported the implied nine-factorial model (Antonakis et al., 2003; Avolio, Bass, & Jung, 1995; Bass & Avolio, 1997; Tejada, Scandura, & Pillai, 2001). However, a larger number of studies failed to confirm the nine-factorial model. The number of factors range from two factors (e.g., Tepper & Percy, 1990) to three (e.g., Hinkin, Tracey, & Enz, 1997), four (e.g., Lievens, Van Geit, & Coetsier, 1997), five (e.g., Bycio et al., 1995; Koh, Steers, & Terborg, 2005; Yammarino, Spangler, & Bass, 1995) and six factors (e.g., Avolio, Bass, & Jung, 1999; Hater & Bass, 1988). In some studies (Geyer & Steyrer, 1998; Heinitz et al., 2005), contingent reward loads on a transformational factor. Some studies reveal that management by exception-passive and laissez-faire load on one factor (Avolio et al., 1999; Bass & Avolio, 2000; Heinitz et al., 2005; Hetland & Sandal, 2003). In sum, some issues regarding intercorrelations and factor structure among MLQ scales are still not resolved and the debate about the MLQ goes on. However, despite these unresolved issues, the MLQ is the most used when showing links to transformational leadership outcomes.

*The Effectiveness of Transformational Leadership*

A common criticism of transformational leadership (Bass, 1985) is that it is all “smoke and mirror - a feel good type of leadership” (Bass & Riggio, 2006, p. 56), leading to happy followers but not affecting performance as measured by objective means. However, research on the effectiveness of transformational leadership is strongly convincing. Transformational leadership is consistently related to several outcomes across study settings such as business, college, military, and the public sector (Judge & Piccolo, 2004) and across cultures (Den Hartog, House, Hanges, Ruiz-Quintanilla, & Dorfman, 1999). The list of studies on transformational leadership outcomes is long. In essence, on organizational levels, transformational leadership is positively linked to organization and business unit performance (Whittington, Goodwin, & Murray, 2004) such as economic criteria (Geyer & Steyrer, 1998; Howell & Avolio, 1993), as well as group performance (Sosik, Avolio, & Kahai, 1997). On an individual level, transformational leadership is a valid predictor for psychological criteria such as commitment (e.g., Meyer, Stanley, Herscovitch, & Topolnytsky, 2002), creativity (e.g., Jung, Chow, & Wu, 2003), follower job performance and job satisfaction (e.g., Fuller, Patterson, Hester, & Stringer, 1996; Lowe, Kroeck, & Sivasubramaniam, 1996), motivation (e.g., Bass, Avolio, Jung, & Berson, 2003), organizational citizenship behavior (e.g., Podsakoff, MacKenzie, & Bommer, 1996), perceived job characteristics (e.g., Piccolo & Colquitt, 2002), psychological empowerment (e.g., Avolio, Zhu, Koh, & Bhatia, 2004), organizational empowerment (e.g., Epitropaki & Martin, 2004), self-efficacy (e.g., Dvir, Eden, Avolio, & Shamir, 2002), and turnover intentions (Bycio et al., 1995).

### **Transformational Leadership compared to other New Leadership Theories**

Transformational leadership reflects what is referred to as a “new leadership” theory (Bryman, 1993). New leadership theories place a greater emphasis on “vision/mission articulation, ... motivating and inspiring, ... creating change and innovation, ... the empowerment of others, ... [and] stimulating extra effort” (Bryman, 1993, p. 111), whereas “old leadership” theories such as behavior and situational approaches focus more on planning, allocating responsibility, controlling, problem-solving or creating routines (Bryman, 1993). Other recently developed new leadership theories have emerged that share conceptual overlaps with transformational leadership. I would like to make a case for transformational leadership by comparing those approaches and drawing the lines to transformational leadership.

#### *Transformational Leadership and Charismatic Leadership*

Transformational leadership and what is called *charismatic leadership* are often used interchangeably (Hunt & Conger, 1999) – even by leadership researchers. However, I would like to make the case for a differentiation on a conceptual level. House (1977), who founded charismatic leadership research, developed Weber’s conception (1947) of charismatic leadership. The word “charisma” is etymologically Greek and means “gift”. According to Weber (1947), a person with charisma is “set apart from ordinary people and treated as endowed with supernatural, superhuman, or at least specifically exceptional powers or qualities [...] regarded as of divine origin or as exemplary, and on the basis of them the individual concerned is treated as a leader” (p. 358). House argued in his charismatic leadership theory, that followers attribute outstanding or heroic leadership qualities to their leaders based on attributional processes. Compared to Weber’s view,

Conger and Kanungo (1998) argue that charisma “is not some magical ability limited to a handful” (p. 161). Conger and Kanungo (1998) report widely accepted, typical charismatic characteristics such as possessing and articulating a vision, willing to take risks to achieve a vision, exhibiting sensitivity to followers’ needs, and demonstrating novel behavior. According to Kirkpatrick and Locke (1996a), charismatic leadership focuses clearly on communication styles. However, even if their framework of charismatic leadership has similarities to transformational leadership, and the differences between both concepts seem to be “minor” or “fine tuning” (House & Podsakoff, 1994, p. 71), there is still a differentiation between them. Bass (1985) suggests that “charisma is a necessary ingredient of transformational leadership, but by itself is not sufficient to account for the transformational process” (p. 31). Bass seems to be right, because what empirical studies show is, that researchers indeed implicitly separate the concepts of transformational leadership and charismatic leadership from one another, while describing the terms somewhat imprecisely. For example, Judge and Piccolo (2004) use the terms idealized influence and charisma interchangeably. In contrast, Waldman, Ramirez, House, and Puranam (2001) put charisma on a level with the two transformational leadership dimensions “idealized influence” and “inspirational motivation”. Those are just two examples revealing that at least two transformational leadership dimensions would be non-charismatic but transformational: intellectual stimulation and individual consideration. And this reflects that there is more than “little real difference” (Conger & Kanungo, 1998, p. 15) between the two concepts.

*Transformational Leadership and Authentic Leadership*

I would like to compare transformational leadership and *authentic leadership theory* in brief. According to Avolio, Gardner, Walumbwa, Luthans, and May (2004), authentic leaders as “those who are deeply aware of how they think and behave and are perceived by others as being aware of their own and others' values/moral perspectives, knowledge, and strengths; aware of the context in which they operate; and who are confident, hopeful, optimistic, resilient, and of high moral character” (p. 802). What might separate transformational leadership and authentic leadership conceptually? The discourse by Avolio and Gardner (2005) others (e.g., Avolio et al., 2004) on the question of morality in leadership reflects a fundamental philosophical debate on principles or ontology. Avolio and Gardner (2005) argue that transformational leadership might be immoral if leaders such as transformational leaders project an image of good leadership, but act in a way that serves their own interests at the cost of their followers. The argumentation by Avolio et al. (2004) and Avolio and Gardner (2005) is that the concept of transformational leadership only pretends to be “universally positive” (Judge et al., 2006, p. 211). Avolio et al. (2004) find support for their argumentation in a statement by Bass (1985), who assumed that “transformational leadership is not necessarily beneficial” (p. 21). Indeed, this is somewhat inconsistent with the predominant conceptual assumption by Bass (1997) who stated that “transformational leaders move their followers to transcend their own self-interests for the good of the group, [and for the] organization” (p. 133). Paradoxically, although Avolio and Gardner (2005) argue that transformational leadership and authentic leadership are distinct from each other, they believe that authentic leadership “could incorporate ... transformational ... leadership” (p. 329). Based on my review of transformational leadership, I do not think that authentic leadership incorporates transformational leadership

(Avolio & Gardner, 2005), because transformational leadership is much broader than authentic leadership. One could go further and assume that transformational leadership might incorporate authentic leadership and not vice versa. However, what is missing is research showing that authentic leadership has the same impact on individual and organizational outcomes as transformational leadership as described earlier. Up to now, due a lack of research, it is not possible to tell whether transformational leadership is less moral than authentic leadership. It is not even clear whether transformational leadership is a necessary condition for authentic leadership or vice versa (Judge et al., 2006, p. 211). At the moment, transformational leadership seems preferable over authentic leadership in theory and application.

### *Transformational Leadership and Ethical Leadership*

In this section, transformational leadership will be compared with a new construct named *ethical leadership*. Brown et al. (2005) defined ethical leadership as “the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision-making” (p. 120). In brief, an ethical leader is an ethical role model. Some researchers saw a need to look closer at ethics in leadership due to ethical scandals in business (Brown & Treviño, 2006). However, is there any difference between ethical leadership and transformational leadership? Transformational leadership is defined as having an ethical component, whereby transformational leaders demonstrate “high standards of ethical and moral conduct” (Avolio, 1999, p. 43), which is represented through idealized influence. Furthermore, research shows that followers perceive leaders with higher moral reasoning to be more

transformational. The sticking point for ethical leadership researchers is that Bass (1985) argued that transformational leaders could be ethical or unethical depending upon their motivation. Generally, ethical leadership researchers would agree that transformational leadership and ethical leadership overlap. “Transformational and ethical leaders care about others, act consistently with their moral principles (i.e., integrity) ... and are ethical role models for others” (Brown & Treviño, 2006, p. 599). However, Brown et al. (2005) suggested that ethical leadership and transformational leadership are distinct constructs. In fact, the results of their study did not show “distinctiveness” (p. 129). A closer look at their study reveals that their ethical leadership scale is highly correlated with the examined transformational dimension idealized influence behavior, a transformational subdimension that refers to actions of the leader (e.g., Antonakis et al., 2003). Furthermore, the data from confirmatory factor analysis indicate that the ethical leadership scale by Brown et al. (2005) and idealized influence behavior do overlap. Regardless, Brown et al. (2005) make a case for a “construct valid measure” (p. 132). I do not think that these results are sufficiently compelling to justify the “distinctiveness” of ethical leadership at this point.

### **Personality and the Perception of Transformational Leadership**

Personality traits investigations in the field of leadership were not successful for a long period of time (e.g., Judge et al., 2002). However, there has been a revival of interest in personality research, especially in transformational leadership, since researchers nearly simultaneously found that either leaders’ extraversion (Bono & Judge, 2004) or followers’ extraversion (Felfe & Schyns, 2006) are predictors for being rated as a transformational leader.

*Personality of Transformational Leaders*

A few years ago, a meta-analysis by Judge, Bono, Ilies, and Gerhardt (2002) demonstrated that some traits were associated consistently with leadership emergence – that is, “whether (or to what degree) an individual is viewed as a leader by others” (p. 767) – and leadership effectiveness, which is “performance in influencing and guiding the activities ... toward achievement of ... goals” (p. 767). The study shed considerable light on the dispositional basis of leadership, by using the five-factorial model (e.g., Goldberg, 1990) as an organizing framework for a lot of very diverse studies and reviews in the field of personality and leadership. An advantage of the Big Five framework is its integrative character which makes it particularly useful for cumulating results across studies (Barrick & Mount, 1991). Judge and colleagues’ (2002) were confronted with the circumstance, that previous research did not identify traits that correlated with leadership because many different traits were studied “with few of the same traits being investigated across studies” (Judge et al., 2002, p. 773). What happened prior to the work by Judge et al. (2002) was that personality research with the focus on leadership resulted in several, heterogeneous reviews that revealed very different traits or they revealed very different expressions for similar traits (e.g., Judge et al., 2002). Nevertheless, the promising major result of the meta-analysis by Judge et al. (2002) is that the trait extraversion (Eysenck, 1970) is the most consistent correlate of leadership across study settings and of leader emergence and leadership effectiveness. However, the meta-analysis does not address the relationship between personality and transformational leadership. Therefore, Bono and Judge (2004) went on to focus on the dispositional basis of transformational leadership. Using the five-factor model of personality as an organizing framework, the authors showed in their comprehensive meta-analysis, that extraversion was the strongest and most consistent



correlate of transformational leadership. Extraversion correlated with transformational leadership with  $r = .24$ . Neuroticism (Barrick & Mount, 1991; Eysenck, 1947) was negatively related to transformational leadership with  $r = -.16$ . That means leaders scoring high on extraversion and low on neuroticism are perceived as transformational. This seems to be a good starting point for more research on personality and the perception of transformational leadership. In sum and in line with Judge et al. (2002), Bono and Judge (2004) provided clear evidence that extraversion is a dispositional basis of transformational leadership and the perception of transformational leaders. However, extraversion is a very broad personality trait. According to Bono and Judge (2004), research should focus on more specific traits relevant for transformational leadership. Interestingly, very similar implications can be transferred to another area of research on transformational leadership: the research on followers' personality.

#### *Personality of Followers within Transformational Leadership Research*

A new branch of transformational leadership research is gaining in importance: the follower-centered perspective (Dvir & Shamir, 2003; Ehrhart & Klein, 2001; Felfe & Schyns, 2006, Wofford et al., 2001). Lots of research was done on leaders' personality (e.g., Bono & Judge, 2004; Judge et al., 2002). This is in line with Meindl (1995), who stated that transformational leadership is based on leader-centered assumptions. The central assumption, according to Meindl (1995), is that an understanding of transformational leadership must somehow proceed from an understanding of the unique character or behavior of the leader. Hence, it is not surprising, that "the followers are obviously nonexistent or passive" (Avolio, 2007, p. 26) when looking at what constitutes transformational leadership. Consistently, there are very few studies – that is, there exist

four empirical studies – that examine the effects of followers’ personality on the perception of transformational leadership up to now. In the following, those studies are described chronologically:

Ehrhart and Klein (2001) found that college participants’ self-esteem and intrinsic work values and the value that they attach to participation in decision-making were moderately related to a preference for charismatic leadership. Although charismatic leadership shares similarities with transformational leadership, it is not equal to transformational leadership as measured by the MLQ 5X Short.

Wofford et al. (2001) examined the moderating effects of follower motive patterns for transformational leadership effectiveness. Wofford et al. (2001) found that followers’ need for autonomy and growth-need strength moderated the influence of leadership – that is, when followers’ need for autonomy and growth-need strength were high, the relationship between transformational leadership and effectiveness and subordinates’ satisfaction was higher than when those motives were low.

Dvir and Shamir (2003) studied follower developmental characteristics as predictors of transformational leadership in a field study in a military situation. The authors showed that followers’ initial level of motivation, morality, and empowerment predicted transformational leadership ratings over time. According to Dvir and Shamir (2003), transformational leaders are more “encouraged to activate a transformational style because they will perceive their followers as having the appropriate characteristics for such leadership” (p. 330) when facing followers with an already high development level such as motivation. Dvir and Shamir (2003) conclude that “follower characteristics also have the potential to predict leadership” (p. 339).

Felfe and Schyns (2006) were the first authors to examine followers within the

transformational leadership research using the well-established and widely accepted Big Five (Costa & McCrae, 1992; Goldberg, 1990) personality trait extraversion (Eysenck, 1970). Felfe and Schyns (2006) showed that leaders' extraversion was a significant predictor for student participants' perception of transformational leadership, and they called for more research dealing with followers' traits "that might influence perception [...] of transformational leadership" (p. 731).

The findings by Felfe and Schyns (2006) are very similar and in line with Bono and Judge (2004) in their leader-centered research perspective, who showed that leaders' extraversion is a predictor for being rated as transformational. Although a taxonomy such as the Big Five is a useful framework, both of the two research groups call for "more narrow or specific traits that may be relevant in predicting and understanding transformational [...] leadership" (Bono & Judge, 2004, p. 908). The personality trait *core self-evaluations* introduced by Judge, Locke, and Durham (1997) is a more specific trait than extraversion and might serve as a promising construct as will be shown in the next section. This trait will be in the focus of this dissertation.

### **The Concept of Core Self-Evaluations**

The concept of core self-evaluations (CSE) implies a fundamental appraisal of one's worthiness, effectiveness, and capability as a person (Judge, Erez, Bono, & Thoresen, 2003). Generally speaking, a person scoring high on CSE is well adjusted, positive, self-confident, and efficacious, and believes in his or her own agency (Judge et al., 2003). The second order construct CSE subsumes four similar, highly intercorrelating traits (Judge & Bono, 2001; Judge, Erez, Bono, & Thoresen, 2002): *self-esteem* (Rosenberg, 1965), *emotional stability* (Goldberg, 1990), *generalized self-efficacy* (Locke, McClelland, & Knight,

1996), and *locus of control* (Rotter, 1966). In the following, brief definitions and backgrounds will be given of the CSE-indicators, which are not only essential constructs in organizational psychology (e.g., Judge et al., 2003):

*Self-Esteem.* According to Rosenberg (1965), self-esteem is a “favorable or unfavorable attitude toward the self” (p. 15). Self-esteem is considered as the evaluative component of the self-concept, a broader representation of the self that includes cognitive, behavioral, evaluative, or affective aspects (Blascovich & Tomaka, 1991). Self-esteem is linked to several organizational variables such as job performance (Pierce, Gardner, Cummings, & Dunham, 1989), job satisfaction (Judge & Locke, 1993; Locke et al., 1996), leadership effectiveness (Hill & Ritchie, 1977) and organizational citizenship behavior (Pierce et al., 1989).

*Emotional Stability.* This factor is also frequently called neuroticism, but also Stability, or Emotionality (Digman, 1990). Emotional stability, that is (low) neuroticism, is one of the "Big Two" initial dimensions of Eysenck (1947), neuroticism and extraversion. Common traits associated with emotional stability include being angry, anxious, emotional, embarrassed, insecure, and worried (Barrick & Mount, 1991). In organizational research, emotional stability is positively related to job satisfaction (e.g., Furnham & Zacherl, 1986; Judge, Heller, & Mount, 2002; Judge, Locke, Durham, & Kluger, 1998) and job performance according to meta-analyses by Salgado (1997) and Tett, Jackson, and Rothstein (1991).

*Generalized Self-Efficacy.* According to Bandura (1977), self-efficacy is the “belief in one’s capabilities to organize and execute the courses of action required to produce given attainments” (p. 3). Bandura (1977) described self-efficacy as task specific. Within organizational research, self-efficacy is positively related to several outcomes such as job

satisfaction and intention to quit (Saks, 1995), leadership (Chen & Bliese, 2002), performance evaluation and performance improvement (Bartol, Durham, & Poon, 2001), research productivity of university faculty members (Taylor, Locke, Lee, & Gist, 1984), performance (Stajkovic & Luthans, 1998), and it buffers negative effects of work stressors on employees' psychological well-being (Jex & Bliese, 1999). Judge et al. (1998) defined generalized self-efficacy as "one's estimates of one's capabilities to mobilize the motivation, cognitive resources, and courses of action needed to exercise general control in one's life" (p. 19). That means that it is not tied to specific situations or behavior but generalized to a "variety of situations" (Sherer et al., 1982, p. 664).

*Locus of Control.* According to Rotter (1966), locus of control is the degree to which individuals believe that they control events in their lives (internal locus of control) or believe that the environment or fate controls events (external locus of control). Within organizational research, (internal) locus of control is positively related to coping behaviors in stress settings (Anderson, 1977), job involvement (Reitz & Jewell, 1979), job satisfaction (Judge et al., 1998; Spector, 1982), job performance (Judge & Bono, 2001), perceived job characteristics (Abdel-Halim, 1980), or perceived leadership (Runyon, 1973).

The four CSE indicators presented are considerably interrelated, as the research shows (average  $r > .60$ ; Judge et al., 2002). Results of several cross-cultural studies indicate that the four traits load on one single factor, demonstrating factorial validity (Erez & Judge, 2001; Judge, Bono, & Locke, 2000; Judge, Erez, & Bono, 1998). Judge et al. (2003) therefore developed and validated a direct measure of CSE, called the Core Self-Evaluations Scale (CSES). The CSES is based on the following scales: the Neuroticism scale by Costa and McCrae's NEO-FFI Personality Inventory (1992), the Rosenberg's Self-Esteem Scale (1965), the internality subscale of Levenson's (1981) Internal, Powerful

Others, and Chance (IPC) scale, and a generalized self-efficacy scale developed by Judge et al. (1998). The research suggests cross-cultural evidence, such as for the United States of America (Judge et al., 2003), The Netherlands and Spain (Judge, Van Vianen, & De Pater, 2004).

Judge et al. (1997) introduced CSE as a variable that possibly explains dispositional sources of job satisfaction. And as a matter of fact, CSE is significantly related to job satisfaction (Judge et al., 1998). Furthermore, CSE is related to other important criteria within the organizational context such as career ambition (Judge et al., 2004), goal commitment (Bono & Colbert, 2005), goal setting (Erez & Judge, 2001), job performance (Judge, & Bono, 2001; Judge et al., 2003), motivation (Erez & Judge, 2001; Judge et al., 1998), and perceived job characteristics (Judge et al., 2000). Within other areas of psychological research, CSE is related to burnout (Best, Stapleton, & Downey, 2005), depression (Judge et al., 2002), happiness (Piccolo, Judge, Takahashi, Watanabe, & Locke, 2005), life satisfaction (Judge et al., 1998), physical and psychological health functioning (Tsaousis, Nikolaou, Serdaris, & Judge, 2007), positive and negative affectivity (Judge, Thoresen, Pucik, & Welbourne, 1999), and strain and stress (Judge et al., 2002).

### **Core Self-Evaluations and Transformational Leadership**

Why is there no research on CSE and transformational leadership? Would CSE high-scorers perceive more transformational leadership? Does the perception of transformational leadership partially mediate the relationships between CSE and individual outcomes? And if so, might this perception be explained by implicit leadership theories and perceived similarity?

*Core Self-Evaluations and Implicit Leadership Theory*

A person's implicit leadership theory is the person's assumption about the traits, abilities, and behaviors that characterize a leader, represented as a cognitive schema (Meindl, 1993). Most people have well-defined, abstract schemas about leadership, which are "the characteristics of such leaders, and the appropriate behaviors involved in the process of leading" (Nye, 2002, p. 338). These schemas are personal definitions of ineffective or effective leadership behaviors.

In this regard, research such as the Global Leadership and Organizational Behavior Effectiveness study (GLOBE; House et al., 2004) shows that transformational leadership, and in specific the visionary and influential components, seem to encompass the ideal conception of leadership. Den Hartog et al. (1999, p. 250) conclude, that "the combined results of the major GLOBE study [...] demonstrate that several attributes reflecting [...] transformational leadership are universally endorsed as contributing to outstanding leadership." That means that individuals' implicit leadership theories appear to fit best with the evaluation of transformational leadership. Or in other words: When asking people what the ideal leadership looks like, the majority would name leadership attributes that represent the transformational leadership conception. Might this be the case for CSE, too? Would CSE be part of transformational leadership attributes encompassing the ideal conception of leadership (e.g., Den Hartog et al., 1999)? There are reasons to assume that core self-evaluations, that is the four indicators are related to transformational leadership, which seems to be a common implicit leadership theory (Den Hartog et al., 1999). According to Shamir et al. (1993), transformational leaders should have high self-esteem. This seems understandable because leaders without high-self esteem might not communicate high expectations or visions. Furthermore, a transformational leader is expected to be emotional

stable. And indeed: The research shows, that neuroticism is not desired in a transformational leadership process (Lim & Ployhart, 2004). Next, a transformational leader should communicate high goals and motivates others to perform beyond expectations (Bass, 1985). If such a leader wants to be successful, he or she must be sure to be able to deal with compelling and new situations. According to Judge et al. (1997) this could be represented with generalized self-efficacy. It might be necessary for transformational leaders to hold such an expectation in order to successfully impact their followers' self-efficacy (Kark et al., 2003). Furthermore, transformational leaders might have to have a high locus of control. Indeed, Howell and Avolio (1993) showed, that locus of control, a "key personality characteristic" (p. 892) in transformational leadership research, is positively related to the rating of transformational leadership.

In sum, I have explained and linked the idea of implicit leadership theory, transformational leadership and CSE. Would followers perceive transformational leadership when stimuli such as CSE are activated that might represent the transformational leadership conception? Would followers perceive more transformational leadership if they think they are similar and have high core self-evaluations, too? Or in the words: Do followers' CSE have "the potential to predict [transformational] leadership" (Dvir & Shamir, 2003, p. 339)?

### *Core Self-Evaluations and Similarity*

In social psychology, there has been a voluminous amount of research on the similarity-attraction paradigm (Berscheid, 1969; Byrne, 1971). Similarity means that individuals are attracted to, that is prefer others who are similar to self (Berscheid, 1969; Byrne, 1971), for example in terms of attitudes (e.g., Byrne, 1971), values (e.g., Hill &



Stull, 1981) and traits (e.g., Caspi & Herbener, 1990). Similarity has been found to have a positive effect on interpersonal relationships, such as romantic relationships (Hester, 1996; Meyer & Pepper, 1977), friendships (Werner & Parmalee, 1979), work ties (e.g., Lincoln & Miller, 1979). Similarity is also a topic in research on intergroup relations (e.g., Hewstone, Rubin, & Willis, 2002; Roccas & Schwartz, 1993). For example, people tend to assume that in-group members hold attitudes and beliefs more similar to their own than out-group members do (Brewer, 1979; Diehl, 1988). According to Rosenbaum (1986), dissimilarity can also lead to repulsion, which lowers interpersonal attraction or liking. Whereas early research focused mainly on attitudinal similarity, research has shown that similarity in any number of dimensions may increase attraction, for example similarity in demographics (Lincoln & Miller, 1979) or leisure interests (Fink & Wild, 1995).

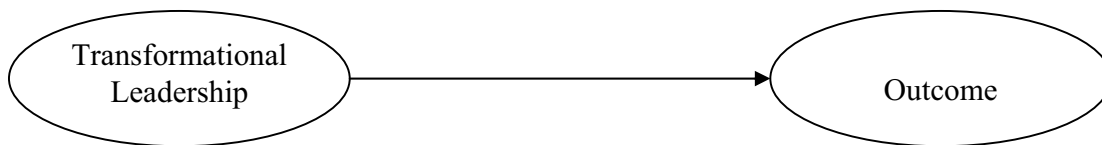
Similarity can also be applied to the general research on leadership research. Similarity between leaders and followers affects job satisfaction (Meglino, Ravlin, & Adkins, 1989; Turban & Jones, 1988), organizational commitment (Meglino et al., 1989), supervisor's liking of a subordinate (Wayne & Liden, 1995), supervisor-rated performance (Pulakos & Wexley, 1983; Strauss, Barrick, & Connerley, 2001; Wayne & Liden, 1995) and the quality of relationships between leaders and followers (Philipps & Bedeian, 1994; Turban, Dougherty, & Lee, 2002).

In the case of transformational leadership, leaders similar to followers in terms of personality traits may be more apparent to followers. That means, that followers similar in personality to the leaders might perceive more transformational leadership. Indeed, Shamir et al. (1993) emphasized that similarity to the leader is an important aspect for attribution of transformational leadership. However, Felfe and Schyns (2006) were the first authors to use the idea of perceived similarity between student participants and hypothetical

transformational leaders as a theoretical frame for a study.

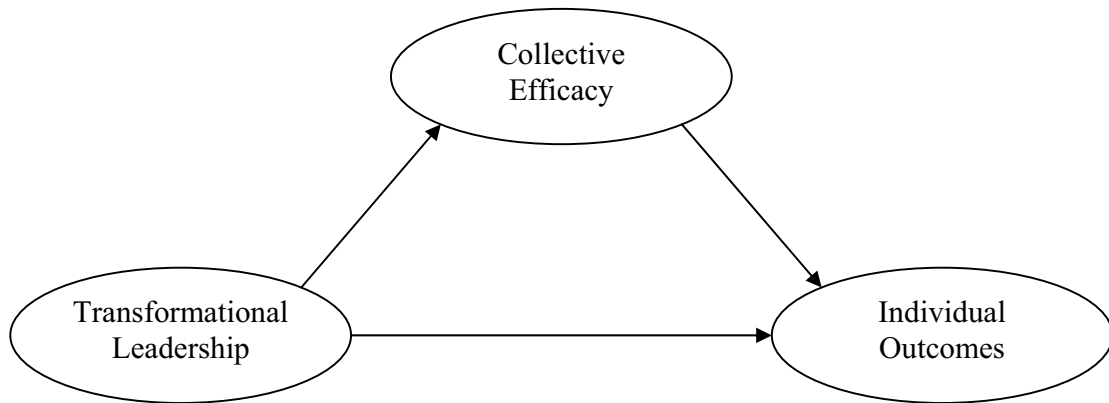
### **Aim of This Project and Outline of Studies**

Usually, researchers assume that transformational leadership is the initial source of followers' subjective and/or objective outcomes (e.g., Felfe, 2006). This widely-used leader-centered assumption is illustrated in Figure 1.3.



*Figure 1.3.* Leader-centered assumption: Transformational leadership causes the outcome.

More and more studies (e.g., Avolio et al., 2004; Bono & Judge, 2003; Purvanova, Bono, & Dzieweczynski, 2006; Richardson & Vandenberg, 2005; Walumbwa, Peng, Lawler, & Shi, 2004) are seeking to identify and explicate the mechanisms that underlie the observed relationships between transformational leadership as the predictor and criteria variables such as satisfaction (e.g., Lowe et al., 1996) through the inclusion of a third explanatory variable, called a mediator variable (Baron & Kenny, 1986). According to Baron and Kenny (1986), a mediator “accounts for the relation between the predictor and the criterion” (p. 1176). For ease of understanding, I would like to illustrate the basic leader-centered causal model assumption using a simplified example. Figure 1.4 shows a mediation model as hypothesized by Walumbwa et al. (2004).



*Figure 1.4.* Example of a transformational leader-centered based mediating model adapted from Walumbwa et al. (2004).

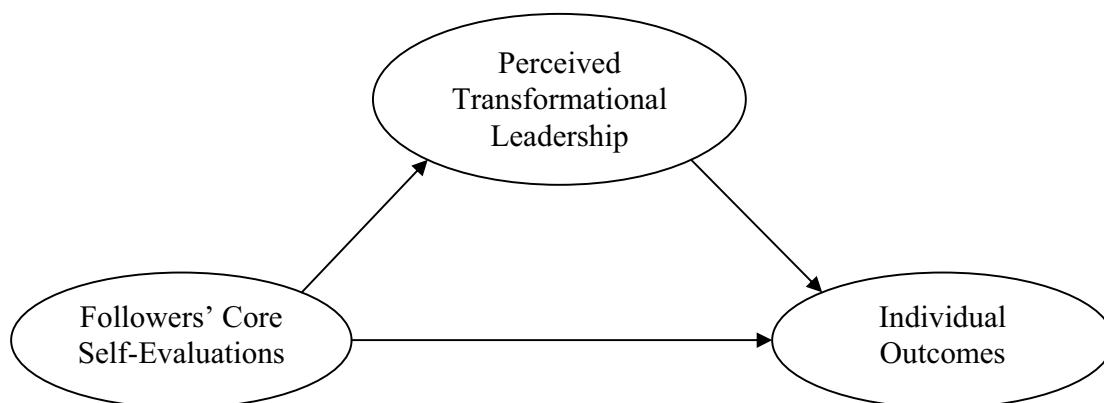
Walumbwa et al. (2004) hypothesized and showed that collective efficacy mediates the relationship between transformational leadership and individual outcomes such as job satisfaction. That means transformational leadership enhanced collective efficacy which increased followers' job satisfaction.

Nevertheless, despite the huge amount of leader-centered research, the underlying assumption of this dissertation is that followers' personality traits are more than just mediating variables (e.g., Bono & Judge, 2003; Shamir et al., 1993; Sparks & Schenk, 2001) in explaining individual outcomes, such as followers' job satisfaction (Shamir et al., 1993). Most research questions on transformational leadership have focused on transformational leader behaviors, mostly measured by followers' reactions. It may be that transformational leadership does not play the role as it does in the traditional leader-centered research.

Implicit leadership theory and similarity served as theoretical frames to direct the hypotheses of this dissertation project. In brief, the perception of leadership is shaped by implicit leadership theories (Nye, 2002) as presented above. Furthermore, similarity seems

to be an important aspect in the follower-centered transformational research. It must be stated that neither implicit leadership theory nor similarity was to be tested. The focus of the present work was to examine if followers' personality influences the perception of transformational leadership and individual outcomes.

Specifically, the aim of the present project was to test a hypothesized model that integrated the specific personality trait core self-evaluations (Judge et al., 1997) as the predictor and perceived transformational leadership (Bass, 1985) as a partial mediator, as well as the criteria job satisfaction, satisfaction with the leader, extra effort, and turnover intentions. The idea is the following: It might be that followers scoring high on core self-evaluations show certain differences in individual outcomes as compared to followers who score lower on CSE. Furthermore, high CSE followers might perceive more transformational leadership in comparison to low CSE followers. Perceived transformational leadership should partially explain the links between followers' CSE and their outcomes. This is illustrated in Figure 1.5.



*Figure 1.5.* Proposed underlying follower-centered (partial) mediating model of this dissertation. Individual outcomes = satisfaction with the leader, extra effort, job satisfaction, and turnover intentions.

The purpose of the online-survey based study 1 (Chapter 2) was the translation and validation of a German-language Core Self-Evaluations Scale according to the original by Judge et al. (2003). The research question is:

**Does the German-language Core Self-Evaluations Scale show factorial, construct, criterion, and incremental validity?**

The focus of the cross-sectional field study 2 (Chapter 3) was to link core self-evaluations (Judge et al., 2003) of followers with their ratings of transformational leadership (Bass, 1985) and individual outcomes. A partial mediating model was hypothesized. Both, followers' core self-evaluations and transformational leadership, were expected to influence individual outcomes. The main research question is:

**Is the impact of followers' core self-evaluations on the individual outcomes such as job satisfaction, satisfaction with the leader, extra effort, and turnover intentions partially mediated by perceived transformational leadership?**

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# 2

## Validation of a German-Language Core Self-Evaluations Scale

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### Abstract

This study presents the validation of a German-language Core Self-Evaluations Scale (CSES; Judge, Erez, Bono, & Thoresen, 2003). Core self-evaluations are fundamental appraisals that individuals hold about their own capability, effectiveness, and worthiness as a person (Judge et al., 2003). Data was collected from two samples, 200 workforces and 134 students. The data supported the underlying single-factor solution. The German-language CSES (G-CSES) is reliable and shows convergent validity with regard to internal consistency (Krampe, 1981) and IPIP40 scales neuroticism, extraversion, and conscientiousness (Hartig, Jude, & Rauch, 2003) and discriminant validity with regard to the IPIP40 scale openness. The scale correlates significantly with job satisfaction and life satisfaction. Additionally, the G-CSES is incrementally valid over and above traits of the five-factor model of personality.

*Keywords:* Core Self-Evaluations, German-Language Core Self-Evaluations Scale, G-CSES, IPIP40, Job Satisfaction, Life Satisfaction

### Validation of a German-Language Core Self-Evaluations Scale

Recently, research on a broad personality trait termed *core self-evaluations* (CSE) has received a great deal of attention. CSE is a “fundamental appraisal of one’s worthiness, effectiveness, and capability as a person” (Judge, Erez, Bono, & Thoresen, 2003, p. 304). According to Judge, Locke, and Durham (1997), the core concept is indicated by four traits sharing conceptual similarities (Judge & Bono, 2001): (1) *self-esteem* (Rosenberg, 1965); (2) *emotional stability*, which is low neuroticism, the tendency to be confident, secure, and steady (Goldberg, 1990); (3) *generalized self-efficacy*, an evaluation of how well one can perform across a variety of situations (Locke, McClelland, & Knight, 1996), and (4) *locus of control*, the belief about the causes of events in one’s life, specifically internal locus of control, when individuals see events as being contingent on their own behavior (Rotter, 1966). A person scoring high on CSE is well adjusted, positive, self-confident, efficacious, and believes in his or her own agency (Judge et al., 2003).

Judge et al. (1997) originally introduced CSE as a potential explanatory variable in the dispositional source of job satisfaction. For example, Judge, Locke, Durham, and Kluger (1998) found that people with a positive self-concept (scoring high on CSE) are more likely to perceive their jobs as interesting, significant and autonomous than those with a negative self-concept (scoring low on CSE). In addition to CSE being a fundamental appraisal, it also affects life satisfaction in general (Heller, Watson, & Ilies, 2004; Judge et al., 1998).

The four CSE indicators are interrelated. Specifically, all of the core traits assess the positivity of self-description (Judge, van Vianen, & de Pater, 2004). Not surprisingly, Judge, Erez, Bono, and Thoresen (2002) found considerable correlations (average  $r = .60$ ) among the four CSE dimensions. Furthermore, in a number of studies by Judge and others have found that the four traits load on a single factor, both in confirmatory and exploratory

factor analysis (Erez & Judge, 2001; Judge, Bono, & Locke, 2000; Judge, Erez, & Bono, 1998; Judge et al., 1998), which suggests one latent, underlying concept of CSE (Judge et al., 2003). Furthermore, several studies have offered significant evidence of the concept's validity. Within the organizational context, the construct CSE is significantly related to important criteria such as job satisfaction (Judge et al., 1998), job performance (Judge, & Bono, 2001; Judge et al., 2003), career ambition (Judge et al., 2004), goal commitment (Bono & Colbert, 2005), goal setting (Erez & Judge, 2001), motivation (Erez & Judge, 2001; Judge, Erez, & Bono, 1998), and perceived job characteristics (Judge, Bono, & Locke, 2000). Within other areas of psychological research, CSE is related to burnout (Best, Stapleton, & Downey, 2005), depression (Judge et al., 2002), happiness (Piccolo, Judge, Takahashi, Watanabe, & Locke, 2005), life satisfaction (Judge et al., 1998), physical and psychological health functioning (Tsaousis, Nikolaou, Serdaris, & Judge, 2007), positive and negative affectivity (Judge, Thoresen, Pucik, & Welbourne, 1999), and strain and stress (Judge et al., 2002).

Judge et al. (2003) developed and validated a direct measure of CSE, called the Core Self-Evaluations Scale (CSES). The CSES consists of 12 items developed from the Neuroticism scale of the NEO-FFI Personality Inventory (Costa & McCrae, 1992), Rosenberg's Self-Esteem Scale (1965), the internality subscale of Levenson's (1981) Internal, Powerful Others, and Chance (IPC) scale, and a generalized self-efficacy scale developed by Judge et al. (1998). Results suggested that the CSES is reliable, as assessed by internal consistency (average  $\alpha = .84$ ) and test-retest reliability ( $r = .81$ ). CSES showed convergent validity by its significant correlations with the four scales of the indicators: self-esteem, average  $r = .87$ ; generalized self-efficacy, average  $r = .82$ ; neuroticism, average  $r = -.76$ ; and internal locus of control, average  $r = .50$  (Judge et al., 2003).

The purpose of the present study is to develop and validate a German-language version of the CSES that is suitable for use in applied psychological domains such as organizational or clinical psychology. The aim is to answer the following relevant questions:

1. Can the single factor structure of CSE be confirmed for German-speaking workforces and students samples?
2. Does the measure show construct validity, that is, convergent and discriminant validity?
3. Does the German CSES correlate with job satisfaction and life satisfaction and also show criterion validity?
4. Is the scale incrementally valid over conceptually similar variables?

#### Validation Steps of the German-Language Core Self-Evaluations Scale

Factorial validity is essential for developing a scale such as CSES. If a measure assesses a construct in a reliable and valid manner, the factor structure should match theoretical predictions (Schwab, 1980). That is, CSES should measure and display the single factor structure of CSE. Indeed, in the study by Judge et al. (2003) confirmatory factor analysis supported the underlying single-factor solution of the scale as proposed. Thus, the single-factor structure in the German-language CSES (G-CSES) is expected.

H1: The G-CSES will assess a single dimensional construct.

Further, we expect relationships between the traits of the five-factor model of personality conscientiousness and extraversion and CSE. Self-efficacy is sometimes seen as an aspect of conscientiousness (Costa & McCrae, 1992). Therefore, generalized self-efficacy, with a person's effective dealing with a variety of situations, should be associated with CSE. Judge and Bono (2001) found that neuroticism and self-esteem are significantly

correlated with extraversion and conscientiousness. Extraversion is consistently related to conscientiousness (Judge et al., 2003). In sum, it is “reasonable to assume that those who tend to be more sociable, assertive, active, and upbeat (extroverts) will tend to evaluate themselves, their environment, and their control over their environment in a more positive manner” (Judge et al., 2003, p. 308). Thus, similar to the findings of Judge et al. (2003), we expect to find the following relationships with G-CSES:

H2.1: The G-CSES will be highly negatively related to neuroticism.

H2.2: The G-CSES will be moderately positively related to locus of control.

H2.3: The G-CSES will be moderately positively related to conscientiousness.

H2.4: The G-CSES will be moderately positively related to extraversion.

If G-CSES has discriminant validity, it should “not correlate too high with measures from which it is supposed to differ” (Campbell, 1960, p. 548). Analogous to the study by Judge et al. (2003), G-CSES should correlate weakly or not statistically significantly with constructs that seem to be totally distinct from CSE theoretically, such as the traits of the five-factor model of personality traits agreeableness and openness. Results by Judge et al. (2003) support discriminant validity of the original CSES.

H3.1: The G-CSES will be weakly related to agreeableness.

H3.2: The G-CSES will be weakly related to openness.

Importantly, G-CSES should show criterion validity. Judge et al. (1997) originally introduced CSE as a potential explanatory variable in the dispositional source of job satisfaction. It seems that CSE influences job satisfaction, “because positive individuals actually obtain more challenging jobs, and also because they perceive jobs of equal complexity as more intrinsically fulfilling” (Bono & Judge, 2003, p. 9). Not surprisingly, Judge et al. (2003) found a significant relation between CSES and job satisfaction in a



sample of employees. The present study includes a sample of workforces and a sample of students with part-time jobs. According to Boegli, Inversion, Müller, and Teichgräber (2005), 78% of all Swiss university students work on the side (psychology students:  $M = 10$  hs/week), primarily for economic reasons (68%). We assume that those students are able to assess their job satisfaction on a global level.

H4.1: The G-CSES will be positively related to job satisfaction in both samples.

Judge et al. (2003) also found significant correlations between CSE and life satisfaction (average  $r = .51$ ). This is in accord with the view that the concept of CSE is a fundamental appraisal, affecting satisfaction with life in general (Heller et al., 2004).

H4.2: The G-CSES will be positively related to life satisfaction.

However, the G-CSES should not only show good criterion validity. It should also demonstrate incremental validity, which is the case when a measure “add[s] to the prediction of a criterion above what can be predicted by other sources of data” (Hunsley & Meyer, 2003, p. 446). Moreover, “it is important to justify how the new scale provides information that was formerly unavailable or less adequately obtained” (Hunsley & Meyer, 2003, p. 449). In fact, the original CSES adds incremental validity beyond the scales of the four indicators as well as the traits of the five-factor model of personality (Judge et al., 2003).

H5: The G-CSES adds incremental validity beyond locus of control, internality, and traits of the five-factor model of personality concerning the criteria job satisfaction and life satisfaction.

## Method

### *Participants*

Two independent native German-speaking samples, from Germany and Switzerland, participated in a voluntary online survey. Participants were contacts of the research team and members of psychology students' mailing lists. They were invited by e-mail to complete a Web-based questionnaire, and 334 (69%) did so. The following two samples were collected in order to replicate results by Judge et al. (2003): Participants in sample 1 (49.5% women, 50.5% male) were 200 workforces (85% salaried employees, 15% miscellaneous); 78.5% of the participants lived in Germany and 21.5% in Switzerland. Participants' ages in sample 1 ranged from 19 to 66 ( $M = 35.5$  years,  $SD = 9.1$ ). Sample 2 (73.9% women and 25.4% men) consisted of 134 Master's level graduate students; 65% lived in Switzerland and 35% in Germany. Participants' ages in sample 2 ranged from 19 to 45 ( $M = 25.4$ ,  $SD = 4.12$ ). Sixty percent ( $n = 80$ ) of the students had some work experience, such as part-time jobs.

### *Measures*

*Demographics.* Participants in both samples completed a form that asked about demographic information such as sex, occupation, marital status, country of residence, and first language.

*Life satisfaction.* Life satisfaction was measured in both samples using Schumacher's (2003) German-language version of the Satisfaction With Life Scale by Diener, Emmons, Larsen, and Griffin (1985). This 5-item measure consisted of statements such as "I am satisfied with my life." Each item is scored on a 7-point scale from 1 (strongly disagree) to 7 (strongly agree).

*German-language Core Self-Evaluations Scale.* CSE were measured using a German-language adaptation (G-CSES; Heilmann, 2006; see Appendix) of the CSES by Judge, Erez, Bono, and Thoresen (2003). Like the original CSES, the G-CSES measure consists of 12 statements. Judge et al. (2003) reported that CSES items were generated and developed from a pool of 65 items based on the four core traits. Examples are “I am confident I get the success I deserve in my life” and “I do not feel in control of my success in my career.” Each item is scored on a 5-point scale from 1 (strongly disagree) to 5 (strongly agree). For the German-language adaptation, the original English version of this scale was translated and back-translated by the authors of this study and English native speakers. Items such as “Sometimes, I do not feel in control of my work” or “There are times when things look pretty bleak and hopeless to me” could not be translated literally; therefore, linguistic differences were taken into account. Furthermore, guidelines for translations were used as described by Van de Vijver and Hambleton (1996). For example, short and simple sentences were used and unnecessary words avoided. After translating the English items into German, independent native speakers translated the items back into German. Some back-translations slightly varied from the original in wording, for example adjectives or specific expressions. But these variations were acceptable, because they expressed the same meaning. In the end, the G-CSES was finalized (see Appendix).

*Locus of control.* Locus of control was measured using the internality subscale of Krampen’s (1981) IPC-Questionnaire of the Locus of Control, a German version of Levenson (1981). Examples of the 23 items include “My life is determined by my own actions” and “When I get what I want, it’s usually because I worked hard for it.” Each item is scored on a 6-point scale from 1 (very wrong) to 6 (very true).

*Job satisfaction.* Overall job satisfaction was measured in both samples using a

single-item measure, asking “If you are employed, how satisfied are you with your work in overall?” The item was scored on a 5-point scale from 1 (very satisfied) to 5 (very unsatisfied).

*Neuroticism, extraversion, openness, agreeableness, and conscientiousness.* The traits of the five-factor model of personality were measured using the German online version by Hartig et al. (2003) of Goldberg’s (1999) International Personality Item Pool (IPIP). The scales measure the “Big Five” domains as described by Costa and McCrae (1992). Hartig et al. (2003) validated the German-language IPIP with the NEO-FFI (Borkenau & Ostendorf, 1993). It shows very convincing psychometrics as well as a five-factor structure. For example, neuroticism is measured by items such as “I panic easily” or “I have frequent mood swings.” Each item is scored on a 5-point scale from 1 (strongly disagree) to 5 (strongly agree).

*Online survey tool.* The Web-based questionnaire was created and run by using the online survey tool Online Panel Site Tool 5.0 (Globalpark, 2006).

### *Procedure*

Participants were invited by e-mail to complete a Web-based questionnaire. Participants were linked from the invitation e-mail to the Web questionnaire. They were informed that the questionnaire consisted of questions on their personality and aspects of satisfaction and assured that all information they provided would remain confidential. They were told that participation would take approximately 10 minutes. At the bottom of each page, participants’ responses were submitted. The Web site was left open for four weeks. On average, participants took 12 minutes to complete the questionnaire.

## Results

*Preliminary Analysis*

A one-way ANOVA was conducted to examine differences in variables between sample 1 (workforces) and sample 2 (students). Internal consistencies (Cronbach's  $\alpha$ ), means and standard deviations for the scales in both samples are presented in Table 2.1.

Table 2.1

*Internal Consistencies, Means, and Standard Deviations for both Samples*

Scale	Workforces ( $n = 200$ )			Students ( $n = 134$ )		
	$\alpha$	$M$	$SD$	$\alpha$	$M$	$SD$
SWLS	.82	5.41	.91	.82	5.36	1.02
G-CSES	.75	3.73	.47	.79	3.67	.50
IPC-I	.65	4.57	.51	.68	4.50	.46
JS	-	3.98 <sub>a</sub>	.89	-	3.66 <sub>b</sub>	.83
IPIP40-N	.84	2.09	.65	.85	2.27	.67
IPIP40-E	.82	3.48	.65	.82	3.35	.64
IPIP40-O	.72	3.65	.60	.80	3.80	.70
IPIP40-A	.77	3.79	.55	.76	3.79	.53
IPIP40-C	.74	3.82 <sub>a</sub>	.51	.82	3.49 <sub>b</sub>	.61

*Note.* SWLS = Satisfaction with Life Scale; G-CSES = German-language Core Self-Evaluations Scale; IPC-I = IPC-Questionnaire of Locus of Control, internality subscale; JS = Job Satisfaction; IPIP40 = International Personality Item Pool (N = neuroticism, E = extraversion, O = openness, A = agreeableness, C = conscientiousness). JS was filled out by 80 participants of sample 2 (students). JS was scored on a 5-point scale from 1 (very satisfied) to 5 (very unsatisfied). Means in the same row that do not share subscripts differ at  $p < .01$ .

Specifically, G-CSES shows acceptable internal consistency in both samples. Comparing the two samples, workforces (sample 1) showed significantly lower overall job satisfaction than sample 2 (students with work experience),  $F(1) = 5.29$ ,  $p < .05$ ,  $d = .05$ , an effect size that is considered to be small (Cohen, 1992). Further, conscientiousness was significantly higher in sample 1 than in sample 2,  $F(1) = 27.29$ ,  $p < .000$ ,  $d = .87$ , which is an effect size that is considered to be large (Cohen, 1992). Across both samples, no differences in variables were found between German and Swiss participants,  $p > .05$ .

### *Test for Hypotheses*

To test H1, confirmatory factor analyses (Byrne, 2001) for both samples were calculated using AMOS 6.0 (Analysis of Moment Structures; Arbuckle, 2005). Confirmatory factor analysis was used to determine if the single factor and the loadings of measured indicators, operationalized through the CSES-items, conformed to what was expected on the basis of the pre-established CSES theory by Judge et al. (2003). The data supported the underlying single-factor solution of the scale as proposed by Judge et al. (2003). The fit statistics show a good fit to the data for both samples according to Browne and Cudeck (1993). The fit statistics are shown in Table 2.2.

Table 2.2

*Fit Statistics from Confirmatory Factor Analysis of Single Dimensional Structure of G-CSES*

Fit Statistics	Sample 1 ( $n = 200$ )	Sample 2 ( $n = 134$ )
$\chi^2$	56.18	56.25
df	44	46
$\chi^2/\text{df}$	1.28	1.22
P	.10	.14
TLI	.96	.96
NFI	.89	.87
IFI	.98	.97
RMSEA	.04	.04

*Note.* TLI = Tucker-Lewis Index; NFI = Normed Fit Index; IFI = Index of Fit; RMSEA = Root Mean Square Error of Approximation.

In order to test the construct validity (Cronbach & Meehl, 1955) of the G-CSES, convergent (H2.1 - H2.4) and discriminant validity (H3.1 - H3.2) were assessed.

The G-CSES correlated with the IPIP subscales neuroticism, extraversion, and conscientiousness, as well as with the internality subscale of the IPC-Questionnaire of Locus of Control. Significant but moderate correlations with conscientiousness and extraversion were anticipated (H2.3, H2.4). Across the two samples, the G-CSES correlated highly significantly with the two core traits neuroticism (H2.1) and locus of control and internality subscale (H2.2) and moderately significantly with (H2.3) and extraversion (H2.4). Overall, G-CSES showed significant convergence with the four traits. The data thus

provide strong support to hypotheses H2.1 - H2.4. Table 2.3 reports the results.

Discriminant validity was tested by H3.1 and H3.2. According to findings by Judge et al. (2003), H3.1 predicted that G-CSES will correlate weakly with agreeableness for both samples. Furthermore, H3.2 predicted a weak correlation between G-CSES and openness for both samples. Data provided strong support for H3.2. Interestingly, a z-test (Aiken & West, 1991) revealed that the samples differed significantly,  $z = -.18$ . The correlation between G-CSES and openness in the student sample (sample 2) was nearly zero, while the correlation in sample 1 was negative. The data did not support H3.1. G-CSES correlated significantly positively with agreeableness in both samples. The results are shown in Table 2.3. The results suggest that G-CSES seems to be a valid construct. It strongly converges with four constructs in two heterogeneous samples. Moreover, G-CSES diverges from openness.

Criterion validity (Cronbach & Meehl, 1955) was tested in H4.1 and H4.2. For H4.1 a correlation between G-CSES and job satisfaction was predicted for sample 1 (workforces) and sample 2 (students) with job experience. Table 2.3 reports the correlations between G-CSES and the criterion variables for sample 1 and sample 2 in the bottom two rows. Also, the results show that G-CSES correlated significantly with life satisfaction in both samples. The data provided strong support for hypothesis H4.2. This suggests criterion validity of the G-CSES.



Table 2.3

*Product-Moment Correlations of G-CSES with other Variables*

	Sample 1 ( <i>n</i> = 200)	Sample 2 ( <i>n</i> = 134)
Neuroticism	-.73**	-.69**
Internality (LOC)	.44**	.40**
Conscientiousness	.27**	.34**
Extraversion	.22**	.29**
Agreeableness	.24**	.20**
Openness	-.18 <sub>a</sub>	.01 <sub>b</sub>
Life Satisfaction	.44**	.50**
Job Satisfaction	.31**	.28*

*Note.* LOC = Locus of Control; \*\* $p < .01$ , \* $p < .05$ . Correlation CSE - job satisfaction in sample 2 was calculated with  $n = 80$  (students with work experience). Correlations in the same row that do not share subscripts differ at  $z_{5\%} = 1.65$ , one-way.

In order to test H5, hierarchical regression analyses were conducted on the variables job satisfaction and life satisfaction. In the first step occupation and marital status were controlled for. Post-hoc analyses showed high correlations between marital status, job satisfaction, and life satisfaction. The traits of the five-factor model of personality excluding neuroticism were entered in the second step. In the third step, the two CSE indicators internality of the IPC Scale and neuroticism were entered into the equation. CSE was entered in the fourth step. As shown in Table 2.4, the data do not provide support for CSE. The amount of explained variance of the whole regression for job satisfaction is  $\Delta R^2 = .22$ . After controlling for occupation and marital status, the results showed a significant

main effect only for conscientiousness. For life satisfaction, the results are promising. The amount of explained variance of the whole regression for life satisfaction is  $\Delta R^2 = .37, f^2 = .02$ . By convention, this effect size is considered small (Cohen, 1992). Each block caused significant change in  $\Delta R^2$ . Even after controlling for demographic variables and personality variables such as neuroticism which automatically shares variance with G-CSES, CSE explain 2% of variance, with a significant beta value. This means that CSE contributes to predicting life satisfaction.

Table 2.4

*Hierarchical Regression on Job Satisfaction and Life Satisfaction*

	Job Satisfaction			Life Satisfaction		
	$\beta$	$\Delta R^2$	$\Delta R^2$ Change	$\beta$	$\Delta R^2$	$\Delta R^2$ Change
Step 1		.06	.06**		.07	.07***
Occupation	.20**			.02		
Marital Status	.14*			.25***		
Step 2		.18	.11***		.17	.10***
Occupation	.09			-.05		
Marital Status	.17			.21***		
Conscientiousness	.27***			.18**		
Extraversion	.13			.18**		
Agreeableness	.03			.17**		
Openness	.10			-.05		

Table 2.4 (continued)

	Job Satisfaction			Life Satisfaction		
	B	$\Delta R^2$	$\Delta R^2$ Change	B	$\Delta R^2$	$\Delta R^2$ Change
Step 3		.22	.05**		.35	.18***
Occupation	.08			-.04		
Agreeableness	-.02			.07		
Openness	.12			.01		
IPC - Internal	-.02			.08		
Neuroticism	-.24***			-.46***		
Step 4		.22	.00		.37	.02*
Occupation	.08			-.04		
Marital Status	.13*			.14**		
Conscientiousness	.22***			.04		
Extraversion	.07			.04		
Agreeableness	-.02			.06		
Openness	.12			.01		
IPC - Internal	-.20			.06		
Neuroticism	-.20*			-.34***		
Core Self-Evaluations	.07			.18**		

*Note.* \*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ ; occupation: workforces ( $n = 200$ ) = 1 in both analyses; students ( $n = 80$ ) in analyses on job satisfaction, and students ( $n = 134$ ) for analyses on life satisfaction = 0; marital status: relationship = 1, no relationship = 0.

### Discussion

The present study demonstrated that the German-language Core Self-Evaluations Scale is a valid and reliable scale that measures the single underlying factor structure proposed by Judge et al. (1997). To our knowledge, this is the first study to replicate the results previously reported by Judge et al. (2003) using German-speaking samples from Germany and Switzerland. It makes useful predictions concerning the criterion life satisfaction, adding incremental validity beyond personality traits of the five-factor model. In sum, this study provided a useful and efficient German-language scale for applied psychology such as organizational psychology or clinical psychology. Turning to the results more specifically, three key findings are particularly worthy of discussion.

First, the G-CSES shows a single dimensional structure for workforces and students. This is in line with results for the United States by Judge et al. (2003) but also with results for The Netherlands and Spain (Judge, van Vianen, & de Pater, 2004). This supports the cross-cultural evidence of the Core Self-Evaluations Scale, showing results corroborating those that were found in the original English version concerning psychometric properties and some indicators of validity, such as life satisfaction.

Second, the G-CSES predicted job satisfaction and life satisfaction. According to Judge and Watanabe (1993), life satisfaction reflects a broad state of satisfaction, influencing the job evaluation. However, only life satisfaction predicted incremental validity beyond similar measures used in this study, such as neuroticism. One possible explanation of why job satisfaction was not incremental valid over and above scales such as neuroticism is that job satisfaction was assessed by only one item. Nonetheless, the relationship with CSE was relatively strong. The use of single-item measures in psychological research is mostly discouraged because of low reliability. However, Wanous,

Reichers, and Hudy (1997) showed that the use of a single item-measure of overall job satisfaction is acceptable. In their meta-analysis of single-item measures of overall job satisfaction these authors found an average uncorrected correlation of .63 ( $SD = .09$ ) with scale measures of overall job satisfaction.

The third finding seems to be noteworthy. Marital status predicted job satisfaction and life satisfaction. This variable did not play any role in previous research on CSE. But it is documented that marital status influences life satisfaction, for example in the years following marriage (Diener, Gohm, Suh, & Oishi, 2000; Lucas, Clark, Georgellis, & Diener, 2003). Marital status can be conceptualized as a form of social support (Stroebe, 2000), such as emotional support (listening or providing empathy) or instrumental support (for example, helping others to do their work). LaRocco, House, and French (1980) found that emotional support did not predict work-related outcomes such as job satisfaction, but it did predict general well-being. On the other hand, Kaufmann and Beehr (1989) reported that emotional support from family and friends was related to job satisfaction. Although the findings are mixed, it is reasonable to hypothesize that marital status has a favorable effect on job satisfaction.

On a conceptual level, the two concepts neuroticism and core self-evaluations are different. Neuroticism is one of the best established traits in personality research, and one might assume that, considering the high correlations with CSE, G-CSES simply measures neuroticism. But as Judge and Bono (2001) noted, the concept of neuroticism is narrow. It typically measures stress, anxiety, or other constructs mostly important for clinical psychological purposes, such as items like “I panic easily.” As Judge et al. (2004) stated, “there are no items in the neuroticism scales of the NEO-FFI (Costa & McCrae, 1992), the International Personality Item Pool (Goldberg, 1999), or the Eysenck Personality Inventory

(Eysenck & Eysenck, 1968) that explicitly reference control or capability” (p. 330). In comparison, the concept of CSE specifically focuses on effectiveness and capability (Judge et al., 2003).

### *Further Findings*

The present study is the first reporting the relationship of job satisfaction and CSE in a sample of students. A possible explanation for the differences in job satisfaction between workforces and students is based on the idea of core job dimensions by Hackman and Oldham (1980). For instance, these core job dimensions comprise task identity or task significance. Work might be assessed differently. Workforces might show more task identity than students, who do not normally spend as much time working in their part-time jobs as workforces. Probably, students do not attribute as much task significance (Locke, 1976) to their jobs as compared to workforces. Unfortunately, neither task identity nor task significance (or any other core job dimension) were assessed in this study. If these assumptions were correct, future studies would have to control for these dimensions.

Another finding should be mentioned. The samples differed significantly on conscientiousness, which is “being careful, thorough, responsible, organized, and planful” (Barrick & Mount, 1991, p. 4). A possible explanation could be that these items were answered in a socially desired manner by the workforces. Another explanation might be a linguistic one. We can imagine that the German-language items assessing conscientiousness might have been more connected with work at a full-time job (money) than to students’ work such as research or studies at university (education).

G-CSES could find greater acceptance in applied research situations than scales lacking job-related topics. According to Schuler (1990) questionnaires measuring personality traits lack acceptance in settings such as assessment situations. One reason

might be that job-related topics are often unattended (Hossiep, Paschen, & Mühlhaus, 2001). As a result, selection test performance could be affected by low test-taking motivation caused by low face validity perceptions (Chan, Schmitt, DeShon, Clause, & Delbridge, 1997).

### *Limitations*

Nevertheless, this study might have some restrictions concerning the incremental validity of G-CSES. A criterion problem might have appeared. Although having argued for a single item-measure of overall job satisfaction, reliability is still missing, and scales for job satisfaction should be used in future research. Reliability information seems to be essential. Poor reliability is problematic, because it produces an artificial lowering of the associations with the predictor variables, such as G-CSES, possibly leading to non-effects (Hunsley & Meyer, 2003).

### *Implications*

The present study is an important step towards CSE research in German-speaking countries. Given the evidence presented here, future research in these countries should replicate existing results and address the discussion points in depth. Furthermore, research should tie up to new and important questions in the field of CSE, such as the relationship of CSE to transformational leadership.

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## Appendix

*German-Language Version of the Core Self-Evaluations Scale (G-CSES)*

German Version	English Original
Ich bin zuversichtlich, in meinem Leben das zu erreichen, was mir zusteht.	I am confident I get the success I deserve in life.
Manchmal fühle ich mich niedergeschlagen. (r)	Sometimes I feel depressed. (r)
Wenn ich etwas anpacke, bin ich meistens erfolgreich.	When I try, I generally succeed.
Manchmal fühle ich mich wertlos, wenn mir etwas nicht gelingt. (r)	Sometimes when I fail I feel worthless. (r)
Ich erledige Aufgaben erfolgreich.	I complete tasks successfully.
Manchmal habe ich das Gefühl, dass mir die Arbeit über den Kopf wächst. (r)	Sometimes, I do not feel in control of my work. (r)
Im Grossen und Ganzen bin ich mit mir zufrieden.	Overall, I am satisfied with myself.
Ich zweifle an meiner Kompetenz. (r)	I am filled with doubts about my competence. (r)
Ich bestimme, was in meinem Leben passiert.	I determine what will happen in my life.
Ich glaube nicht daran, meine Karriere aktiv beeinflussen zu können. (r)	I do not feel in control of my success in my career. (r)
Ich bin in der Lage, mit den meisten meiner Probleme fertig zu werden.	I am capable of coping with most of my problems.
Es gibt Zeiten, in denen mir alles düster und hoffnungslos erscheint. (r)	There are times when things look pretty bleak and hopeless to me. (r)

*Note.* r = reverse-scored.

# 3

## How Followers' Core Self-Evaluations Influence the Perception of Transformational Leadership and Individual Outcomes

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### Abstract

The present study focuses on the influence of followers' core self-evaluations on the perception of transformational leadership and individual outcomes. Core self-evaluations (Judge, Erez, Bono, & Thoresen, 2003) and transformational leadership (Bass, 1985) are linked due to strong conceptual connections. The tested model assumes that the influence of followers' core self-evaluations on the criteria job satisfaction, satisfaction with the leader, extra effort, and turnover intentions is partially mediated by the perception of transformational leadership. Data was collected from 297 subordinates at a German glass-processing company. Structural equation model comparisons support the mediation model. Major implications are that transformational leadership is in the eye of the follower - and that research should highlight the role of followers in transformational leadership research.

**Keywords:** Core Self-Evaluations, Transformational Leadership, Job Satisfaction, Satisfaction with the Leader, Extra Effort, Turnover Intentions

## How Followers' Core Self-Evaluations Influence the Perception of Transformational Leadership and Individual Outcomes

As in the overall leadership field (Judge, Bono, Ilies, & Gerhardt, 2002), the research on transformational leadership has focused mainly on the leader as the initial source of followers' perception of transformational leadership behaviors and related outcomes (Bono & Judge, 2004; Felfe, 2006; Felfe & Schyns, 2006; Judge, Woolf, Hurst, & Livingston, 2006). The follower "remains an underexplored source of variance" (Lord, Brown, & Freiberg, 1999, p. 167). Yet only very few published studies in the field of transformational leadership research are available that examined followers' personality as a potential factor influencing the perception of leaders (Dvir & Shamir, 2003; Ehrhart & Klein, 2001; Felfe & Schyns, 2006; Wofford, Whittington, & Goodwin, 2001). Felfe and Schyns (2006) were the first to examine followers within the transformational leadership paradigm using the well-established and widely used personality trait extraversion (e.g., Costa & McCrae, 1992). Felfe and Schyns (2006) found that followers' extraversion is a predictor for the "perception [...] of transformational leadership (p. 731)". Although a taxonomy such as the Big Five (e.g., Goldberg, 1990) is a useful framework, researchers call for "more narrow or specific traits that may be relevant in predicting and understanding transformational [...] leadership" (Bono & Judge, 2004, p. 908). The concept of *core-self evaluations* (Judge, Locke, & Durham, 1997) is such a more specific trait.

### Core Self-Evaluations, Transformational Leadership, and Hypothesized Model

#### *Core Self-Evaluations*

Judge et al. (1997) proposed the construct named *core self-evaluations*, which they originally introduced as a potential explanatory variable in the dispositional causes of job

satisfaction. According to Judge, Erez, Bono, and Thoresen (2003), core self-evaluations (CSE) are a “fundamental appraisal of one’s worthiness, effectiveness, and capability as a person” (p. 304). The CSE concept is indicated by four widely used lower-order traits that share conceptual similarities (Judge & Bono, 2001): *self-esteem*, the basic appraisal one makes of oneself and the overall value one places on oneself as a person (Rosenberg, 1965); *neuroticism*, which is high emotional stability, or the tendency to exhibit good emotional adjustment (Goldberg, 1990); *generalized self-efficacy*, the estimate of one’s fundamental ability to perform and to be successful (Locke, McClelland, & Knight, 1996); and *locus of control*, the degree to which one believes to be in control of events in life (Rotter, 1966). In other words, a person scoring high on CSE is well adjusted, positive, self-confident, efficacious, and believes in his or her own agency (Judge et al., 2003). The construct CSE is significantly related to the several criteria, including job satisfaction (Heilmann & Jonas, 2008; Judge, Erez, & Bono, 1998; Judge et al., 2003). There are no published studies about followers’ CSE and transformational leadership. However, the connection of CSE to job satisfaction - and other facets of satisfaction - is interesting and seems promising within transformational leadership research, where the criterion “satisfaction” represents a major outcome variable (e.g., Bass, 1999).

### *Transformational Leadership*

According to Bass (1985), transformational leaders “transform” (p. 20), that is, motivate followers to do more than they originally expected to do by enlarging employees’ scope and creating acceptance for the group mission, which results in extra effort. Transformational leader behaviors affect followers’ effort, performance, and satisfaction by raising their self-efficacy and self-esteem (Conger & Kanungo, 1998; Kark, Shamir, &

Chen, 2006; Kirkpatrick & Locke, 1996; Shamir, House, & Arthur, 1993) and locus of control (Bass, 1985) through expressing high expectations of followers and belief in followers' abilities. According to Bass (1985), *transformational leadership* is accomplished through four dimensions. *Idealized influence* refers to serving as a role model to followers. *Inspirational motivation* refers to leaders with a strong vision for the future based on values and ideals. *Intellectual stimulation* refers to leaders that stimulate followers' creativity by questioning and challenging them. *Individual consideration* refers to attending to individual need and developing followers' as a coach or consultant.

*Hypothesized Model: Links between Core Self-Evaluations, Transformational Leadership, and Individual Outcomes*

*Conceptual links between core self-evaluations and transformational leadership.*

Transformational leadership and core self-evaluations share similarities on a conceptual basis. Because follower-centered research is rare, links from the traditional leader-centered research perspective will be reported. Each of the four indicators of the personality trait CSE seems to play a significant role in transformational leadership. According to Shamir et al. (1993), raising followers' self-esteem and self-efficacy through transformational leadership is fundamental in explaining the process by which transformational leader behaviors cause effects on followers, such as on their performance or job satisfaction. Kark et al. (2006) demonstrated that transformational leaders affected followers' self-esteem and self-efficacy. Howell and Avolio (1993) showed that locus of control, a "key personality characteristic" (p. 892) in transformational leadership research, is positively related to followers' rating of transformational leadership. Neuroticism is often associated with anxiousness and low self-esteem (McCrae & Costa, 1991), which would not be desirable in

a transformational leadership process (Lim & Ployhart, 2004). In light of links between core self-evaluations and transformational leadership, it seems surprising that there is no published study that integrated CSE and transformational leadership from the perspective of followers. Both impact the same criteria. One question is: Do individuals scoring high on CSE perceive more transformational leadership behaviors in comparison to individuals scoring low on CSE?

*Core self-evaluations, transformational leadership, and job satisfaction.* Research shows that CSE strongly predicts job satisfaction (Judge et al., 1998; Judge et al., 2003). This seems plausible, because each single CSE indicator itself is related to this criterion. Individuals with high self-esteem will evaluate a challenging job as a beneficial opportunity (Locke et al., 1996). Neuroticism is negatively related to job satisfaction (Spector, 1997). With respect to generalized self-efficacy, Judge et al. (1998) argue that individuals with high self-efficacy are more likely to attain valued outcomes and therefore derive job satisfaction. According to Spector (1982), individuals scoring high on internal locus of control are probably more satisfied with their job, because they do not stay in dissatisfying jobs and are more likely to be successful. However, research shows that transformational leadership behavior is heavily related to job satisfaction, too (Judge & Piccolo, 2004). Both concepts should be studied in association with job satisfaction.

*Core self-evaluations, transformational leadership, and turnover intentions.* Bycio, Hackett, and Allen (1995) showed that transformational leadership behavior and turnover intentions are significantly negatively related. Interestingly, the relationship of core self-evaluations and turnover intentions has not been considered so far. However, as CSE is a strong trait-based predictor for job satisfaction (Judge et al., 2003), and job satisfaction is a predictor for turnover intentions (Tett & Meyer, 1993; Williams & Hazer, 1986), CSE

might also influence turnover intentions.

*Core self-evaluations, transformational leadership, satisfaction with the leader, and extra effort.* Judge et al. (1998) found that people scoring high on CSE were more satisfied with their jobs than people scoring low on CSE. Satisfaction with the leader, that is, satisfaction with the transformational leader behaviors, can be seen as a specific aspect of job satisfaction. Consequently, it might be related to CSE as well. With respect to extra effort, linkages to CSE might not be as strong as regarding satisfaction with the leader, because of the non-satisfaction nature of extra effort. However, Bass (1985) assumed that followers' extra effort shows how much a leader motivates them to perform beyond contractual expectations, for example by raising followers' self-efficacy (Shamir et al., 1993). Studies show that transformational leadership predicts extra effort (e.g., Judge & Piccolo, 2004). If self-efficacy is related to extra effort, CSE should be related to extra effort as well.

*Hypothesized model.* Linkages between CSE, transformational leadership, and specific criteria were reported above. The construct of core self-evaluations is obviously a dispositional source for several variables. For example, it has a positive influence on followers' job satisfaction. Followers with higher core self-evaluations might perceive more transformational leadership, resulting in higher transformational leadership ratings, and in turn in higher follower job satisfaction. In line with reasoning in the present study, CSE is the predictor for the criteria job satisfaction, (low) turnover intentions, satisfaction with the leader, and extra effort. Transformational leadership partially mediates the relationship between subordinate core self-evaluations and outcomes variables.

H: Perceived transformational leadership partially mediates the relationship between followers' CSE and individual outcomes.

## Method

### *Participants*

Data were collected from subordinates of a glass-processing company in Germany. Of 352 employees invited to complete a paper-pencil questionnaire 299 (85%) did so. Respondents' (74% men) age ranged from 17 to 61 ( $M = 37.83$  years,  $SD = 10.94$ ). The subordinates worked in two major areas: 51.4% worked in production (87% men) and 49.5% (48.6% women) in administration (controlling, marketing or sales). Respondents reported being employed at this company for an average of 7.54 years ( $SD = 5.89$ ), being in their current position for an average of 6.15 years ( $SD = 5.38$ ), and working for an average of 5.18 years ( $SD = 5.12$ ) for the managers that they rated.

### *Measures*

*German-language Core Self-Evaluations Scale.* Core self-evaluations were measured using the German-language version of the Core Self-Evaluations Scale (G-CSES; Heilmann & Jonas, 2008) by Judge et al. (2003). This measure consisted of 12 statements, including "I am confident I get the success I deserve in my life" and "I do not feel in control of my success in career." Each item is scored on a 5-point scale from 1 (strongly disagree) to 5 (strongly agree).

*Multifactor Leadership Questionnaire.* Leadership behavior and outcomes were measured using the German version Multifactor Leadership Questionnaire, MLQ Form 5X Short (Bass & Avolio, 1995; translated and adapted by Felfe & Goihl, 2002). The MLQ Form 5X Short comprised nine leadership scales and three second-order factors. Each scale mentioned above was measured with items scored on a 5-point scale from 1 (not at all) to 5 (frequently, if not always). The transformational factor comprised the subscales idealized influence (II), that is, attributed (IIa; 4 items) and behavior (IIb; 3 items), inspirational

motivation (IM; 4 items), intellectual stimulation (IS; 4 items), and individualized consideration (IC; 4 items). The transactional factor measured the scales contingent reward (CR; 3 items), management by exception - active (MbEa; 4 items), and management by exception - passive (MbEp; 4 items). Furthermore, the leadership dimension laissez-faire was measured by three items. Based on Felfe and Gohl (2002), two success criteria were measured additionally: extra effort (EEF; 3 items), that is, whether an employee is willing to work and be successful more than expected, and satisfaction with the leader (SAT; 2 items). In sum, the measure consisted of 38 items. As suggested in other studies (Carless, 1998; Ross & Offermann, 1997), global scores for the leadership factors were calculated by averaging the corresponding scales. The same was done for the three success criteria by averaging the corresponding items.

*Job satisfaction.* Job satisfaction was measured by four essential global dimensions following von Rosenstiel (1999) based on the Job Descriptive Index (Smith, Kendall, & Hulin, 1985). The measure consisted of four items measuring satisfaction with the work itself, with the supervisor, with the training, with development and promotion opportunities and relationship to colleagues. The items were scored on a 5-point scale from 1 (very unsatisfied) to 5 (very satisfied). A global score for job satisfaction was calculated by averaging over the four items.

*Turnover intentions.* Turnover intentions were measured following Bluedorn (1982) and Mobley (1977) by the items “I often think of handing in my notice” and “I intend to stay with this company over the longer term and pursue my career.” The two items were scored on a 5-point scale from 1 (strongly disagree) to 5 (strongly agree).

### *Procedure*

Prior to the investigation, the researcher made a presentation to top management of



the glass processing company, outlining the goals, procedure, and possible outcome of the study. After approving the study, top management informed managers in middle management by sending them a document via e-mail containing information about the study. To be included in the study, the rated middle managers had to have three or more subordinates. In cooperation with the human resources department, employees who met the inclusion criteria were scheduled for data-gathering sessions in training rooms. At each session, the participants were informed about the study and told that participation was voluntary and anonymous. Furthermore, all participants were informed that only mean ratings would be used, that is, no data on an individual basis.

## Results

### *Confirmatory Factor Analyses*

The factor structure of the MLQ was tested before examining the statistical properties of the data. To examine the underlying nine-factor structure proposed by Bass and Avolio (1995), a confirmatory factor analysis (CFA; Byrne, 2001) was computed with AMOS 6.0 (Analysis of Moment Structures; Arbuckle, 2005), using the maximum likelihood method. Prior to this, the criteria for an acceptable fit were set following Backhaus, Erichson, Plinke, and Weiber (2006) and Browne and Cudeck (1993): The chi-square test should not be significant, chi-square/df should be smaller than or equal to 2.5, the goodness-of-fit-index (GFI), the normed fit index (NFI), the Tucker-Lewis Index (TLI) as well the incremental fit index (IFI) should be greater than .90, and the root mean square error (RMSEA) should be smaller than or equal to .05. The fit indices were  $\chi^2(N = 297) = 129.27$ ,  $df = 27$ ,  $\chi^2/df = 4.79$ ,  $TLI = .94$ ,  $NFI = .94$ ,  $IFI = .95$ ,  $RMSEA = .11$ . Thus, the fit of the nine-factor model is unsatisfactory.

A principal component analysis with promax rotation yielded a four factor solution (Eigenvalue > 1). The Keyser-Meyer-Olkin measure of sampling adequacy was very good (.96) and Bartlett's test of sphericity highly significant. In total, the four factors accounted for 58.02% of the variance (Table 3.1). Factor one explained 44.00% of the variance, covering items of the transformational scales inspirational motivation, intellectual stimulation, idealized influence behavior, idealized influence attributed, and all items of the transactional scale contingent reward. The second factor explained 5.96% of the variance and bundled all items of management by exception - passive and laissez-faire. The third factor (4.50% of the variance) consisted of transformational items, primarily of individual consideration, but also intellectual stimulation and idealized influence attributed. The fourth factor explained 3.73% of the variance and covered management by exception - active. Item 27, MbEa, had to be eliminated in order to increase Cronbach's  $\alpha$ ; Items 28, LF, and 8, IS showed cross-loadings and were excluded from the analysis. Similar to findings by Geyer and Steyrer (1998) and Felfe (2006), there is a distinction between the transformational scales. The first factor called "TF - work level" bundles components that include communicating high expectations (IM), supporting new approaches (IS), demonstrating high performance (IIb), and serving as a role model (IIa), as well as clarifying expectations (CR). The second transformational factor called "TF - personal level" represents interpersonal components, such as providing support, listening to subordinates and teaching them (IC), and supporting new approaches. In agreement with previous findings (Felfe, 2006; Geyer & Steyrer, 1998; Heinitz, Liepmann, & Felfe, 2005), Contingent reward loads on a transformational factor. And, as in previous studies (e.g., Avolio, Bass, & Jung, 1999; Heinitz et al., 2005; Hetland & Sandal, 2003), MbEp and LF load on one factor named "Passive-Avoidant," that is, the original construct is not

completely rejected. CFA confirmed the four-factor model, demonstrating a good fit for the data,  $\chi^2(N = 297) = 3.53$ ,  $df = 2$ ,  $\chi^2/df = 1.76$ , TLI = .99, NFI = .99, IFI = .99, RMSEA = .05.

Further, a CFA was computed for the G-CSES to examine the single-factor solution found by Judge et al. (2003) and Heilmann and Jonas (2008). The model fit was improved if a correlation was admitted between measurement errors (Items 4 and 2, 5 and 3, 6 and 2, 6 and 4, 12 and 2, 12 and 4, 12 and 6). Following Browne and Cudeck (1993), CFA confirmed the single-factor model, demonstrating a reasonable fit for the data,  $\chi^2(N = 297) = 98.61$ ,  $df = 47$ ,  $\chi^2/df = 2.09$ , TLI = .92, NFI = .90, IFI = .94, RMSEA = .06.

In addition and prior to hypothesis testing, a one-way analysis of variance (ANOVA) was conducted to test for mean differences between the two major areas of the company, that is, production and administration. The results did not reveal any differences.

Table 3.1

*Principal Component Analysis with Promax Rotation: Loadings, Means and Standard Deviations*

Item	Scale	I	II	III	IV	<i>M</i>	<i>SD</i>
26	IM	.85				3.25	1.14
13	IM	.79				3.40	1.07
25	IIa	.79				3.65	1.10
9	IM	.78				3.26	1.07
10	IIa	.76				3.06	1.15
14	IIb	.76				3.70	1.03
18	IIa	.75				3.44	1.05
29	IC	.74				3.31	1.07
35	CR	.73				3.64	.99
16	CR	.73				3.15	1.78
34	IIb	.71				3.65	1.04
36	IM	.70				3.85	.79
2	IS	.64				3.38	1.00
11	CR	.61				3.49	1.07
19	IC	.57				3.57	1.16
6	IIb	.55				2.98	1.10
31	IC		.81			3.03	1.13
32	IS		.77			3.29	1.01
30	IS		.77			3.39	.94
21	IIa		.72			3.41	1.09

Table 3.1 (continued)

Item	Scale	I	II	III	IV	<i>M</i>	<i>SD</i>
15	IC		.70			3.17	1.13
19	IC	.57				3.57	1.16
6	Ilb	.55				2.98	1.10
31	IC		.81			3.03	1.13
32	IS		.77			3.29	1.01
30	IS		.77			3.39	.94
21	Ila		.72			3.41	1.09
15	IC		.70			3.17	1.13
12	MbEp			-.79		1.94	.97
7	LF			-.76		2.11	1.02
20	MbEp			-.71		1.97	1.04
33	LF			-.71		2.14	1.01
3	MbEp			-.52		2.84	1.02
17	MbEp			-.52		2.41	1.11
22	MbEa				.71	3.34	.97
4	MbEa				.68	2.84	1.02
24	MbEa				.65	3.78	.97
% of Variance		44.00	5.96	4.50	3.73		

*Note.* Ila = Idealized Influence attributed; Ilb = Idealized Influence behavior; IM = Inspirational Motivation; IS = Intellectual Stimulation; IC = Individualized Consideration; CR = Contingent Reward; MbEa = Management by Exception active; MbEp = Management by Exception passive; LF = Laissez-faire.

*Descriptive Statistics and Test for Correlational Hypotheses*

Table 3.2 presents means, standard deviations, reliability coefficients, and correlations for all variables included in the study. All MLQ scales except the transactional scale and the scale for effectiveness of the leader showed good reliabilities. As assumed in the mediation hypothesis (H), followers' core self-evaluations correlated significantly and highest with transformational leadership, that is, the two transformational factors. In contrast, CSE correlated highly negatively with passive-avoidant leadership (PA). Further, core self-evaluations were highly positively correlated with job satisfaction (JS), satisfaction with the leader (SAT), and extra effort (EEF). As hypothesized, CSE correlated highly negatively with turnover intentions (TI). In the following, the transformational factors were combined to a single measure based on high intercorrelations among them, since the hypotheses in the study are concerned with the overall transformational leadership.

Table 3.2  
Means, Standard Deviations, Internal Consistencies, and Intercorrelations of the Variables

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9
1 CSE	3.68	.48	-	(.80)							
2 TF - W	3.47	.77	.36**	-	(.94)						
3 TF - P	3.19	.88	.31**	.84**	-	(.88)					
4 TA	3.56	.82	.12*	.47**	.41**	-	(.54)				
5 PA	2.12	.78	-.26**	-.63**	-.63**	-.35**	-	(.79)			
6 SAT	3.40	.94	.41**	.81**	.78**	.39**	-.68**	-	(.86)		
7 EFF	3.87	.52	.26**	.62**	.60**	.36**	-.49**	.63**	-	(.48)	
8 JS	3.88	.51	.40**	.54**	.53**	.26**	-.46**	.59**	.36**	-	(.63)
9 TI	2.10	.92	-.27**	-.38**	-.35**	-.17**	.36**	-.47**	-.21**	-.51**	-. (41)

*Note.* CSE = Core Self-Evaluations; TF - W = Transformational Leadership - Work Level; TF - P = Transformational Leadership - Personal Factor; TA = Transactional Leadership; PA = Passive-Avoidant Leadership; SAT = Satisfaction with the leader; EFF = Extra effort; JS = Job Satisfaction; TI = Turnover Intentions; Internal consistencies are presented in the diagonal. \*\*p < .01, \*p < .05.

*Test for Mediation Hypothesis using Structural Equation Models*

The hypothesis was tested through a series of nested model comparisons (MacCallum & Austin, 2000) (Table 3.3). The baseline model represents a partial mediating model. This model shows a good fit. Against the hypothesized baseline model, two models were tested. In model 2, which is a fully mediated model, the direct paths from CSE to SAT, EEF, EFF, JS, and TI were not estimated. Model 3 is an alternative model without mediation – that is, the path from CSE to TF was not estimated. Models 2 and 3 provided poorer fits in comparison to the hypothesized model, with fit indices lower than those for the theoretical model (Widaman, 1985). The differences in chi-square in comparison to the hypothesized model were also significant. This suggests that the partial model is a good fit for the data. Figure 3.1 present parameter estimates for the hypothesized model. Transformational leadership partially mediates between CSE and job satisfaction, and satisfaction with the leader. Furthermore, transformational leadership fully mediates between CSE and extra effort and between CSE and turnover intentions. The Sobel test (suggested by Baron & Kenny, 1986) confirms indirect effects for the paths CSE to job satisfaction ( $z = 4.04$ ,  $p < .001$ ), CSE to satisfaction with the leader ( $z = 4.28$ ,  $p < .001$ ), and for CSE to extra effort ( $z = 4.14$ ,  $p < .001$ ) and CSE to turnover intentions ( $z = -3.68$ ,  $p < .001$ ). Thus, transformational leadership serves as a mediator between followers' CSE and outcomes.



Table 3.3  
*Fit Indices for the Hypothesized Partial Mediation Model and Alternative Models*

Model	$\chi^2$	df	$\chi^2/df$	P	TLI	NFI	IFI	RMSEA	$\Delta\chi^2$
Model 1	299.41	139	2.15	.00	.92	.88	.93	.06	
Model 2	315.05	143	2.20	.00	.91	.87	.93	.06	13.28**
Model 3	490.60	111	4.42	.00	.71	.72	.77	.11	48.28**

*Note.* N = 297. Model 1 is the hypothesized partial mediation model; Model 2 is an alternative model with full mediation; Model 3 is an alternative model with no mediation; df = degrees of freedom, NFI = Normed Fit Index, TLI = Tucker-Lewis Index, IFI = Incremental Fit Index, RMSEA = Root Mean Square Error of Approximation. \*\* p < 0.01.

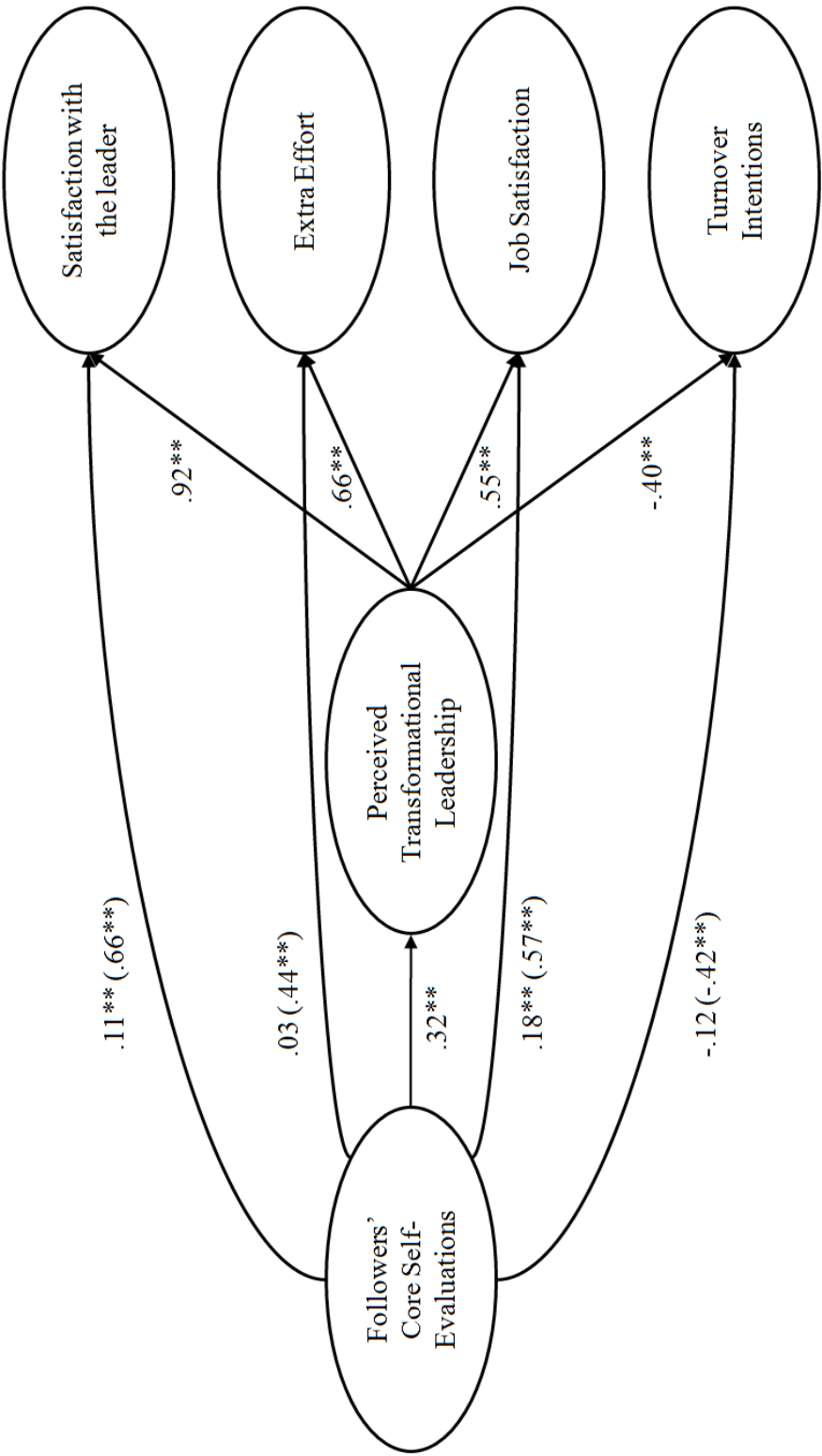


Figure 3.1. Relationships among followers' core self-evaluations, perceived transformational leadership, and followers' outcomes.

*N* = 297; standardized regression weights; coefficients in brackets are standardized regression weights before inclusion of transformational leadership;  
\*\*\*  $p < .001$ , \*\*  $p < .01$

### Discussion

The purpose of this field study was to investigate followers' traits – besides established traits such as extraversion (e.g., Felfe & Schyns, 2006; Judge & Piccolo, 2004) – that might influence the perception of transformational leadership. The study also took a follower-centered perspective, applying an innovative direction in research by testing a partial mediator model linking core self-evaluations (Judge et al., 1997) and transformational leadership (Bass, 1985). These have not been studied in connection before. As there is little follower-centered research within the transformational leadership model, this study was partly exploratory. It reports evidence regarding the theoretical linkages of the two concepts and relations to reported outcomes. The results suggest that perceived transformational leadership partially mediates between core self-evaluations and individual outcomes, providing implications for the theory and practice of transformational leadership. This study is cross-sectional, and the results must be discussed cautiously. However, turning to the results more specifically, four key findings are particularly worthy of discussion.

First, the results are interesting and important on a conceptual level. The data suggest that subordinates' CSE are highly significantly related to transformational leadership and the prediction of the perception of transformational leadership behaviors. Subordinates showing higher CSE seem to perceive more transformational leadership. The usual assumption is that transformational leadership (as the predictor) influences followers' characteristics (either mediators or criteria), such as the CSE-components self-esteem, self-efficacy (Kark, Shamir, & Chen, 2003; Shamir et al., 1993), or locus of control (Howell & Avolio, 1993). Is transformational leadership in the eye of the follower? The data in this study suggest so, and further research is necessary.

Second, this study supports the overall partial mediation model as hypothesized. Transformational leadership serves as a partial mediator between CSE and satisfaction with the leader and job satisfaction. Both CSE and transformational leadership impact those individual outcomes. This is an interesting result in certain ways. It shows the distinct dispositional influence of CSE on subordinates' satisfaction but also the strong impact of transformational leadership on these outcomes. Both variables explain variance in criteria used in this study, supporting the line of reasoning provided in this study. In other words, the outcome variables are affected by both subordinates' traits and the perception of leader behaviors. Further, the data suggest that transformational leadership fully mediates the relationship between CSE and extra effort as well as between CSE and turnover intentions. This is a new finding in the field of transformational leadership research.

Third, the partial mediation model implies certain correlational assumptions between several variables assessed in this study. Obviously, CSE and transformational factors are strongly positively correlated. The connection with transactional leadership is significant but somewhat lower. The relationship of CSE and PA is strongly negative. It might be that subordinates scoring high on CSE prefer being challenged and supported by transformational leaders. Transactional behaviors seem to be accepted, too, but might not fulfill the "needs" of high CSE followers completely. In turn, followers scoring high on CSE do not prefer passive-avoidant leadership behaviors. Possibly high CSE followers want to be challenged in the sense of being led transformational. This makes sense considering the indicators of CSE. People scoring high on CSE show self-esteem, are emotional stable, believe in their own competencies to fulfill several tasks and jobs, and believe that their results are influenced by themselves.

Fourth, the significant association of CSE and job satisfaction could be replicated.

Subordinates scoring high on CSE seem to be job satisfied per se, but transformational behaviors lead to an add-on effect. One might argue that followers scoring high on CSE perceive more transformational behaviors, because they might show a tendency for a general satisfaction or leniency based on their satisfaction, which might lead to more positive rating. However, Bass and Avolio (1989) showed that the tendency of participants to be more or less lenient in their ratings and their general satisfaction did not affect intercorrelations among leadership and outcome variables.

### *Further Findings*

In line with Bycio et al. (1995), the negative relationship between transformational leadership and turnover intentions could be replicated. Further, the highly significant negative correlation between CSE and turnover intentions is of interest. People scoring high on CSE have lower turnover intentions. Analogue to the positive relationship between CSE and job satisfaction, one might say that there is a dispositional basis for turnover intentions. This is a new finding in the field of CSE research.

### *Limitations*

The nine-factor structure of the MLQ 5X Short is not confirmed. This is not new to the field. It is in line with other German-language research, such as the study by Geyer and Steyrer (1998), which found very high correlations among the transformational scales and high intercorrelations between the transformational scales and contingent reward. Similar to these authors, two transformational scales were found. As in the study by Geyer and Steyrer (1998), MBEpassive and LF represented one factor. Similar factor structures in German-speaking samples were found by Heinitz et al. (2005). These findings indicate that a reduced and modified set of MLQ factors might be more appropriate than the structure proposed by Bass (1985). Other research with English-speaking samples supports this lack

of factorial validity (e.g., Avolio et al., 1999; Den Hartog, van Muijen, & Koopmann; Lowe, Kroeck, & Sivasubramaniam, 1996; Vandenberghe, Stordeur, & D'hoore, 2002). In addition, the reliability of the scales for extra effort and turnover intentions was not sufficient. This limits the results and the interpretation. For the future, this would have to be optimized in a replication study.

### *Implications*

One implication is that transformational leadership is in the eye of the follower. Specifically, followers' scoring high on CSE may have a preference for transformational leaders – that is, for transformational leadership behaviors that seem to be accommodating to followers with high core self-evaluations. In return, followers with low core self-evaluations do not seem to have preference for transformational leadership. In sum, future research should highlight the role of followers in transformational leadership theory and research and in applied, real-world transformational leadership.

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# 4

## General Discussion

In this chapter I provide a summary of the results of the dissertation project, followed by a discussion of the findings and the strengths and limitations. I will end with an overview of the findings and their implications along with an outlook to future research in the domains investigated.

### **Summary of Results**

The present dissertation project focused on making a start towards providing an answer to a fundamental question in the transformational leadership field: Is the influence of followers' core self-evaluations on individual outcomes partially mediated by perceived transformational leadership? The field of transformational leadership remains highly leader-centered and appears to treat followers as "passive or nonexistent" (Avolio, 2007, p. 26). To investigate followers' core self-evaluations, a reliable and valid German-language Core Self-Evaluations Scale (G-CSES; Heilmann & Jonas, 2008) was produced in the first study (Chapter 2). This was done in order to test a model that assumed that the influence of followers' core self-evaluations on outcomes such as job satisfaction is partially mediated by perceived transformational leadership (second study; Chapter 3). The main findings of this dissertation are summarized in Table 4.1.

In Chapter 2, it was shown that the G-CSES (Heilmann & Jonas, 2008) has very similar psychometric properties to the original CSES developed and validated by Judge, Erez, Bono, and Thoresen (2003). Specifically, the G-CSES shows a single underlying factor structure, as was shown by the original authors. By using German-speaking workforces and students from Germany and Switzerland, the cross-cultural evidence of this scale could be found. The G-CSES is reliable and shows convergent validity to the following scales: internality (Krampen, 1981), neuroticism, extraversion and



conscientiousness as assessed by the IPIP40 (Hartig, Jude, & Rauch, 2003). The German-language version of the CSES also shows discriminant validity to openness (Hartig et al., 2003). In addition, criterion validity is given by significant positive correlations between G-CSES and the criteria overall job satisfaction and life satisfaction in students and workforces. This replicates previous results by Judge et al. (2003). Moreover, the G-CSES is incrementally valid over and above traits of the five-factor model of personality concerning life satisfaction.

In Chapter 3, it was demonstrated that perceived transformational leadership partially mediates a relationship between core self-evaluations and individual outcomes such as satisfaction with the leader and job satisfaction. Further, it was shown that perceived transformational leadership fully mediates the relationship between core self-evaluations and extra effort and turnover intentions. This is a novel finding in the field of transformational leadership. The overall implications are that transformational leadership is in the eye of the follower. Specifically, the perception of transformational leadership depends on followers' characteristics. Followers' CSE are significantly related to the perception of transformational leadership. This has not been studied elsewhere. The partial mediation model shows that the two variables, CSE and perceived transformational leadership, explain the variance in the studied followers' outcomes. Furthermore, the results suggest that followers' scoring high on CSE give higher ratings concerning transformational leadership and individual outcomes, such as job satisfaction. This raises a potential question: "How should "high" and "low" CSE-followers be led in practice – by transformational leadership or transactional leadership?"

Table 4.1

*Summary of the Main Results of the Present Dissertation Project*

Chapter	Aim	Findings	Conclusions
1	To develop and validate a German-language Core Self-Evaluations Scale (G-CSES) and to replicate original findings. Factorial, construct, criterion, and incremental validity of the G-CSES.	<ol style="list-style-type: none"> <li>1. G-CSES is reliable and shows the proposed single dimensional structure for German-speaking workforces and students from Germany and Switzerland.</li> <li>2. G-CSES shows convergent validity with regard to internality, neuroticism, extraversion and conscientiousness discriminant validity to openness.</li> <li>3. G-CSES correlated significantly positively with job satisfaction and life satisfaction (criterion validity).</li> <li>4. G-CSES is incrementally valid over and above traits of the five-factor model of personality concerning life satisfaction.</li> </ol>	This study provided a reliable and valid G-CSES.
2	To examine a follower-centered model that integrated core self-evaluations (CSE) as the predictor, perceived transformational leadership as a (partial) mediator, and individual outcome criteria related to the two variables.	<ol style="list-style-type: none"> <li>1. Followers' CSE are highly significantly related to the perception of transformational leadership.</li> <li>2. Followers' CSE predict the perception of transformational leadership.</li> <li>3. Perceived transformational leadership serves as a partial mediator between CSE and the criteria satisfaction with the leader and job satisfaction.</li> <li>4. Perceived transformational leadership fully mediates the relationship between CSE and the criteria extra effort and turnover intentions.</li> <li>5. Further, the connection of CSE with transactional leadership is significant but low. The relationship of CSE and passive-avoidant leadership is strongly negative.</li> </ol>	<ol style="list-style-type: none"> <li>1. The perception of transformational leadership depends on followers' personality traits. Specifically, followers scoring high on CSE perceive more transformational leadership.</li> <li>2. Both followers' CSE and perceived transformational leadership impact individual outcomes.</li> </ol>

### **Major Finding: The Role of Core Self-Evaluations**

The studies presented in this dissertation provide an important contribution, because the findings in Chapter 2 and 3 support the research importance and benefit of the construct of core self-evaluations, which is the “fundamental appraisal of one’s worthiness, effectiveness, and capability as a person” (Judge et al., 2003, p. 304). The studies provide perspectives on various levels:

The results of the first study (Chapter 2) underscore the influence of core self-evaluations on the assessment of more broad life aspects such as overall job satisfaction and life satisfaction and their prediction. Thus, the results of the first study are in line with previous assumptions such as from Judge, Locke, and Durham (1997) or Judge et al. (2003).

In the second study (Chapter 3), the relationship and influence of followers’ core self-evaluations on the perception of transformational leadership and individual outcomes were investigated for the first time. It was demonstrated that followers’ CSE are significantly related to individual outcomes, even when perceived transformational leadership was taken into account in the model as a mediating variable. High CSE-followers are more satisfied with their jobs and their leaders. Furthermore, high CSE-followers report more extra effort. Generally, followers’ CSE seem to be one basis for either perceiving transformational leadership (higher CSE) or transactional CSE (lower CSE). The connection of CSE and transformational leadership research was successful. The practical and theoretical implications of the results will be described further below.

## **Strengths and Limitations**

### *Strengths of the Present Project*

The studies making up this dissertation project have a number of strengths. First of all, this project is based on a fundamentally different view than found in much of the transformational leadership research. Typically, researchers assume that transformational leadership is the source of followers' outcomes (e.g., Felfe, 2006). Recently, Hunter, Bedell-Avers, and Mumford (2007) criticized precisely this in their paper on general issues in leadership studies: "Many studies of leadership ask subordinates to report on the perceived behaviors of their supervisor with study hypotheses most often following the rationale that leader behaviors impact subordinate actions or perceptions" (p. 436). The present dissertation project drew attention to the influence of followers within transformational leadership research, that is, to followers' core self-evaluations and their impact on the perception of transformational leadership and followers' outcomes.

Second, this dissertation project introduced the concept of CSE into German-language research in Germany and Switzerland. Major results found by the developers of the original scale assessing CSE (Judge et al., 2003) were replicated. A G-CSES was developed and is now available to other researchers for use in studies with German-speaking participants. Furthermore, the G-CSES is a scale that can be used in other organizational psychological settings and in clinical psychological settings due to its connections to several important psychological criteria such as job satisfaction or life satisfaction.

Third, the present dissertation project linked two concepts, core self-evaluations and transformational leadership, which have been shown to share conceptual overlaps. The two concepts had never been studied together before. This research project was the first one

that did, and the findings suggest that it was time to connect the two concepts.

### *Limitations of the Present Project*

Several methodological limitations of the two studies need to be acknowledged. First, one major limitation is the use of self-reported data. Self-reports are often considerably different from the reports of others (e.g., Harris & Schaubroeck, 1988; Jones & Nisbett, 1972). The two studies also face the same problem that numerous other studies in applied psychology do: the problem of common method variance (Fiske, 1982). Variables in the present study such as CSE and individual outcomes are measured in the same source, and they are interpreted on the basis of correlations. Any defect in the source may contaminate some or all aspects of the outcome measures. With all of the variables thus measured cross-sectionally, there is a risk of further common method variance. The variables may share systematic covariation (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Future research should employ longitudinal studies. However, to put the problem into perspective, Sackett and Larson (1990) showed that about 50% of published studies in leading organizational psychological journals use some kind of self-reports and collect data in the same measurement context. Also, the intermixing of items of similar constructs in the same questionnaire, as was done in both studies, could be criticized. Kline, Sulsky, and Rever-Moriyama (2000) generally recommend intermixing items from several constructs in the same questionnaire in order to reduce common method variance. However, if similar items such as overall job satisfaction and life satisfaction in study 1, and satisfaction with the leader and job satisfaction such as in study 2, are mixed at one point in time, one possible outcome is an increase of the interconstruct correlations. This could be solved in longitudinal designs in future research. Constructs that are related in a nomological net

(Cronbach & Meehl, 1955) should be measured separately, that is, at different points in time.

Second, the results of study 1 (Chapter 2) are not too strongly convincing regarding the differentiation between CSE and neuroticism, even though the conceptual distinction between them was discussed. The construct issue is complicated by the fact that the number of G-CSES items drawn from NEO-FFI neuroticism scale remains unknown. One does not know how much neuroticism variance is incorporated into this 12-item scale. Future research might validate a G-CSES by using the original scales for the CSE indicators analogue to the procedure used by Judge et al. (2003).

Third, the lacking factorial validity of the MLQ 5X Short is a disadvantage for researchers who may want to replicate the present results in future. However, as reported in the introduction, the MLQ 5X Short is still the most used and widely accepted measure of transformational leadership.

### **Further Explanations**

In this section, further possible explanations will be provided pertaining to the following question: Why do followers scoring high on CSE report more perceived transformational leadership than followers scoring lower on core self-evaluations?

#### *The Role of LMX: What about the Impact of Follower-Leader-Interactions?*

Searching for further, different explanations than those presented in Chapter 3, the Leader-Member Exchange theory (LMX; Graen & Uhl-Bien, 1995) might serve as an additional explanation approach. In brief, LMX focuses on the dyadic relationship between a leader and a follower (Graen & Scandura, 1987). Followers are not as passive as it is

assumed in the greater part of the transformational leadership literature. There is a reciprocal process in the dyadic exchanges between leader and follower (Graen & Uhl-Bien, 1995). Transformational leadership and LMX seem to overlap conceptually (Avolio, Sosik, Jung, & Berson, 2003; Howell & Hall-Meranda, 1999). Specifically, there are shared similarities between the transformational subdimension “individualized consideration” and the basic LMX concept, including recognizing potential and understanding needs. Empirical research shows that the LMX concept is linked to some of the criteria that are related to transformational leadership as well (see Chapter 1): commitment (Nystrom, 1990), job satisfaction (Stepina, Perrewe, Hassell, Harris, & Mayfield 1991), organizational citizenship behavior (e.g., Podsakoff, MacKenzie, & Hui, 1993), empowerment (Keller & Danserau, 1995), and turnover (Vecchio, Griffeth, & Horn, 1986). Wang, Law, Hackett, Wang, and Chen (2005) showed that the quality of the leader-follower-relationship in transformational leadership behaviors influence followers’ performance. From my point of view, LMX seems appropriate in serving as an extension to explain the results in Chapter 3. Based on this, two thoughts will be discussed as follows:

*Leader-centered perception of LMX.* In the case of study 2 (Chapter 3), it might be that transformational leaders take their followers’ characteristics, such as followers’ core self-evaluations, into account and adapt their own behavior accordingly, that is, towards either more transformational or more transactional leader behaviors. According to the LMX approach, a leader would be able to build those relationships and accommodate “differing needs of subordinates” (Graen & Uhl-Bien, 1995, p. 224), such as different CSE in followers. This leader-follower relationship could result in higher ratings of transformational leadership and also in higher satisfaction with the leader and job satisfaction (Gerstner & Day, 1997). Future research might want to focus on this issue.

*Follower-centered perception of LMX.* A recent study by Berneth, Armenakis, Feild, Giles, and Walker (2007) showed that employees' neuroticism was found to impact perceptions of LMX. Followers scoring high on neuroticism were less likely to engage with others. Research shows that individuals scoring high on neuroticism are somewhat limited in their social skills (Judge et al., 1997). Neuroticism itself is related to low self-esteem (Eysenck, 1990). Low-self-esteem individuals tend to withdraw from challenging situations "like challenging tasks, have less confidence in their abilities to accomplish challenging assignments, [and] are less likely to seek feedback" (Turban & Dougherty, 1994, p. 690). This might serve as an explanation for differences in CSE in followers and their perception of transformational leadership. Possibly, followers scoring low on CSE tend to withdraw from challenging work situations. Transformational leaders, in contrast, seek demanding situations or stimulate followers' creativity by questioning and challenging them. Withdrawal might serve as a feedback for leaders not to lead or interact using a transformational leadership style with a low CSE follower. Future research might want to explore this idea.

### **Further Thoughts**

Does the MLQ 5X Short measure something beyond actual transformational leader behaviors? And what does the G-CSES actually measure?

#### *Is the Measurement of Transformational Leadership Inflated by*

#### *Implicit Leadership Theories?*

Implicit leadership theories – the schemas that followers have of leaders in terms of leader characteristics and behaviors – might strongly impact the measurement of



transformational leadership. As pointed out in Chapter 1, it appears that some universal elements in implicit leadership theories reflect transformational components, such as having a vision or communicating a vision (Den Hartog, House, Hanges, Ruiz-Quintanilla, & Dorfman, 1999). In fact, Eden and Leviatan (1975) mentioned that leadership questionnaires may measure followers' preconceptions, which are implicit leadership theories, rather than actual leader behaviors. Possibly this is partly true for the MLQ 5X Short as well. Rush, Thomas, and Lord (1977) confirmed that implicit leadership theories inflated followers' ratings of their leaders on the Leader Behavior Description Questionnaire (LBDQ; Hemphill & Coons, 1957). In fact, the MLQ 5X Short is correlated with the LBDQ (Molero, Cuadrado, Navas, & Morales, 2007; Seltzer & Bass, 1990). Further research regarding the possible influence of implicit leadership theories on the rating of transformational leadership seems needed.

*Core Self-Evaluations – An “Occupational” Facet of Emotional Stability?*

The overall evidence for convergent and discriminant validity for the G-CSES appears promising. However, the study reported in Chapter 1 shows mixed results regarding the differences between CSES and neuroticism. Given the minimal contribution made by G-CSES to the prediction in the hierarchical regression analysis, one might be concerned whether G-CSES measures anything substantially different from (low) emotional stability. Indeed, Eysenck (1990) considers self-esteem to be one low order indicator of neuroticism. And neuroticism - or emotional stability - has a much more extensive tradition of research compared to the fairly young concept of core self-evaluations. However, this does not mean that core-self evaluations should be subsumed under the term emotional stability. Typical measures assessing neuroticism measure clinical

psychological issues such as stress or anxiety using, for example, “I panic easily,” one of several items on the IPIP (Hartig et al., 2003) measuring neuroticism. The belief about one’s effectiveness or capability is typically not assessed using neuroticism scales of the NEO-FFI (Costa & McCrae, 1992), the International Personality Item Pool (IPIP) (Goldberg, 1999), or the Eysenck Personality Inventory (Eysenck & Eysenck, 1968). The Core Self-Evaluations Scale specifically focuses on effectiveness and capability (Judge et al., 2003). Therefore, core self-evaluations cannot be fully subsumed under emotional stability, the CSES reflects and focuses on different aspects. Perhaps it indicates an “occupational” facet of emotional stability. Future research, that is, a continuation of that debate, might be fruitful.

### **Practical Implications**

The results of this doctoral research project have practical implications for transformational leadership training, as they provide a better understanding of the psychological processes. Linking followers and leaders opens up the possibility of creating more effective training programs. Specifically, the results of Chapter 3 highlight the importance of followers’ core self-evaluations. Followers scoring high on core self-evaluations perceived leaders as more transformational than followers that scored low on core self-evaluations. One recommendation is that leaders should be trained to become more aware of their followers’ CSE in order to respond more appropriately. High CSE-followers may want to be led in a transformational manner. For example, followers may wish to be challenged by high goals, or be challenged by searching for new ways of problem solving within projects in order to perform beyond expectations. Others, however, such as low CSE-followers, may not welcome a transformational style of leadership.

Further, the results of this project should be integrated into the existing research on “360-degree feedback” (e.g., London & Smither, 1995; Toegel & Conger, 2003). Most of those feedback surveys assess leader perceptions of followers. The present study clearly shows the influence of followers’ personality traits on the results of a potential feedback survey.

### **Research Perspective**

From a research perspective, the most important contribution of this dissertation is that it brings together two important concepts that had not been previously connected to better explain the transformational leadership process. In particular, I used a contemporary concept of personality, that is, core self-evaluations, in order to test its influence on followers’ perception of transformational leadership and followers’ outcomes. My findings complement those of Judge et al. (2003) showing that core self-evaluations are related to job satisfaction and life satisfaction. I showed that the perception of transformational leader behaviors is strongly related to followers’ core self-evaluations. The influence of followers’ core self-evaluations on outcomes such as job satisfaction was partially mediated by perceived transformational leadership. In sum, transformational leadership depends on the perception of the follower. Certainly, further research is necessary in order to change the circumstance that the follower even today “remains an underexplored source of variance” (Lord, Brown, & Freiberg, 1999, p. 167).

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## **Appendix**

**Appendix to Chapter 2***Appendix A-1: Initial Invitation to Online Survey via E-Mail*

Liebe Leserinnen und Leser,

ich bitte Sie darum, sich ca. 10 Minuten Zeit für eine anonyme Befragung zu nehmen. Sie unterstützen damit die psychologische Forschung und meine Dissertation.

In der Umfrage geht es um Ihre Persönlichkeit und um Ihre Zufriedenheit mit sich und der Umwelt. Zum Beispiel: "Wie sehe ich mich?" oder "Wie gehe ich mit verschiedenen Situationen in meinem Alltag um?"

Link: [http://ww3.unipark.de/uc/cses\\_th/](http://ww3.unipark.de/uc/cses_th/)

Ich freue mich sehr, wenn Sie sich die Zeit nehmen und den Fragebogen ausfüllen. Gerne können Sie den Link auch Freunden und Bekannten weiterleiten.

Vielen Dank!  
Tobias Heilmann

*Appendix B-1: Online Survey*

Liebe Teilnehmerinnen und Teilnehmer,

in der Umfrage geht es um Ihre Persönlichkeit und um Ihre Zufriedenheit mit sich und der Umwelt. Zum Beispiel: "Wie sehe ich mich?" oder "Wie gehe ich mit verschiedenen Situationen in meinem Alltag um?".

Es geht um Ihre eigene, ganz persönliche Einschätzung über sich selbst. Es gibt auch keine "falschen" oder "richtigen" Antworten. Lesen Sie bitte jede Frage sorgfältig durch und antworten Sie spontan.

Wichtig: Ihre Antworten werden anonym gespeichert. Niemand – auch ich nicht – kann die Daten Ihnen zuordnen bzw. niemand wird von Ihren Antworten erfahren.

Ich bedanke mich herzlich bei Ihnen.

Freundliche Grüße

Tobias Heilmann

weiter

*Figure 5.1.* Page 1 – Welcome and information about the study.



Bitte beantworten Sie im Folgenden ein paar allgemeine Fragen zu Ihrer Person.

**Geschlecht:**

- ☐ männlich    ☐ weiblich    ☐ keine Antwort

**Wie alt sind sie?**

Jahre

**Ich bin**

- |   |                                     |
|---|-------------------------------------|
| <input type="radio"/> unverheiratet/Single                  | <input type="radio"/> geschieden    |
| <input type="radio"/> unverheiratet/Partnerschaft/Beziehung | <input type="radio"/> verwitwet     |
| <input type="radio"/> verheiratet                           | <input type="radio"/> keine Antwort |

**Ich bin**

(bitte wählen Sie) ▼

- (bitte wählen Sie)
- Angestellte/Angestellter
- Arbeiterin/Arbeiter
- Beamte/Beamter
- Freiberuflerin/Freiberufler
- Hausfrau/-mann
- Unternehmerin/Unternehmer
- sonstiges
- Schülerin/Schüler
- Studierende/Studierender**
- Rentnerin/Rentner
- nicht berufstätig
- arbeitslos
- keine Antwort

Figure 5.2. Page 1 of online survey: demographics.

**In welchem Land leben Sie?**

- ☐ Deutschland  
☐ Österreich  
☐ Schweiz  
☐ sonstiges

**Ist Deutsch Ihre Muttersprache?**

- ☐ ja      ☐ nein

**Wie gut schätzen Sie Ihre Sprachkenntnisse in Deutsch ein?**

- ☐ sehr gut    ☐ gut    ☐ mittel    ☐ schlecht    ☐ sehr schlecht

**weiter**

Figure 5.3. Page 2 of online survey: demographics (continued).

**Nachfolgend finden Sie fünf Aussagen, denen Sie zustimmen oder nicht zustimmen können. Geben sie Ihren Grad an Zustimmung oder Ablehnung durch Anklicken des jeweiligen Kreises an.**

	stimme genau zu	stimme zu	stimme eher zu	neutral	stimme eher nicht zu	stimme nicht zu	stimme überhaupt nicht zu
In den meisten Bereichen entspricht mein Leben meinen Vorstellungen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Meine Lebensbedingungen sind ausgezeichnet.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich bin mit meinem Leben zufrieden.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bisher habe ich die wesentlichen Dinge erreicht, die ich mir für mein Leben wünsche.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wenn ich mein Leben noch einmal leben könnte, würde ich kaum etwas ändern.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**weiter**

Figure 5.4. Page 3 of online survey: Satisfaction With Life Scale (Schumacher, 2003).

**Nachfolgend finden Sie einige Aussagen, die möglicherweise auf Sie zutreffen oder nicht zutreffen.  
Geben sie durch Anklicken des jeweiligen Kreises an, wie zutreffend diese Aussage Sie persönlich beschreibt.**

	sehr unzutreffend	eher unzutreffend	weder noch	eher zutreffend	sehr zutreffend
Im Grossen und Ganzen bin ich mit mir zufrieden.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Manchmal fühle ich mich wertlos, wenn mir etwas nicht gelingt.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich zweifle an meiner Kompetenz.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Manchmal fühle ich mich niedergeschlagen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wenn ich etwas anpacke, bin ich meistens erfolgreich.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich glaube nicht daran, meine Karriere aktiv beeinflussen zu können.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Manchmal habe ich das Gefühl, dass mir die Arbeit über den Kopf wächst.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich erledige Aufgaben erfolgreich.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Es gibt Zeiten, in denen mir alles düster und hoffnungslos erscheint.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich bestimme, was in meinem Leben passiert.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich bin zuversichtlich in meinem Leben das zu erreichen, was mir zusteht.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich bin in der Lage, mit den meisten meiner Probleme fertig zu werden.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**weiter**

*Figure 5.5.* Page 4 of online survey: German-Language Core-Self Evaluations Scale (Heilmann & Jonas, 2008).



Auf der folgenden Seite werden Sie gebeten, zu einigen Aussagen Stellung zu nehmen. Sie haben die Möglichkeit, jeder Aussage stark, mittel oder schwach zuzustimmen oder sie schwach, mittel oder stark abzulehnen. Klicken Sie bitte jeweils die Antwortoption an, der Ihrer persönlichen Meinung am besten entspricht.

Bitte bearbeiten Sie alle Aussagen der Reihe nach, ohne eine auszulassen.  
Grübeln Sie nicht an einzelnen Sätzen herum, sondern bearbeiten Sie die Fragen zügig.

	sehr falsch	falsch	eher falsch	eher richtig	richtig	sehr richtig
Wenn ich bekomme, was ich will, so geschieht das meistens durch Glück.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Zufällige Geschehnisse bestimmen zum grossen Teil mein Leben.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ob ich mit dem Auto einen Unfall habe oder nicht, hängt vor allem von meinem fahrerischen Können ab.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Es hängt hauptsächlich von mir und von meinen Fähigkeiten ab, ob ich in einer Gruppe eine Führungsposition innehave oder nicht.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wenn ich Pläne schmiede, bin ich sicher, dass das Geplante auch Wirklichkeit wird.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich habe das Gefühl, dass das meiste, was in meinem Leben passiert, von anderen Leuten abhängt.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Obwohl ich dazu fähig bin, bekomme ich nur selten Führungsaufgaben übertragen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich habe oft einfach keine Möglichkeiten, mich vor Pech zu schützen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	sehr falsch	falsch	eher falsch	eher richtig	richtig	sehr richtig
Die Zahl meiner Freunde hängt vor allem von mir und meinem Verhalten ab.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Um das zu bekommen, was ich gerne hätte, muss ich zu anderen freundlich sein.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mein Leben wird hauptsächlich von mächtigeren Leuten kontrolliert.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich habe schon oft festgestellt, dass das, was passieren soll, auch eintrifft.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ob ich Gruppenleiter werde oder nicht, hängt vor allem davon ab, dass ich zur rechten Zeit an der richtigen Stelle bin.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Menschen wie ich haben nur geringe Möglichkeiten, ihre Interessen gegen andere durchzusetzen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Es ist für mich nicht gut, weit im voraus zu planen, da häufig das Schicksal dazwischenkommt.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ob ich einen Autounfall habe oder nicht, ist vor allem Glückssache.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>


Figure 5.6. Page 5 of Online Survey –International Personality Item Pool (Hartig, Jude, & Rauch, 2003).



	sehr falsch	falsch	eher falsch	eher richtig	richtig	sehr richtig
Wenn ich bekomme, was ich will, so ist das meistens das Ergebnis harter Arbeit.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mein Leben wird von meinem Verhalten bestimmt.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gewöhnlich kann ich meine eigenen Interessen selbst vertreten.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich kann ziemlich viel von dem, was in meinem Leben passiert, selbst bestimmen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich würde bestimmt nicht viele Freunde finden, wenn mich wichtige Leute nicht sympathisch finden würden.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Damit meine Pläne eine Chance haben, richte ich mich beim Planen auch nach den Wünschen wichtiger Leute.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Es ist eine Frage des Schicksals, ob ich wenige oder viele Freunde habe.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ob ich einen Autounfall habe oder nicht, hängt vor allem von den anderen Autofahrern ab.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**weiter**

Figure 5.7. Page 5 of Online Survey –International Personality Item Pool (Hartig et al.; 2003) (continued).

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**Falls berufstätig: Wie zufrieden sind Sie mit Ihrer Arbeit im Allgemeinen?**

sehr zufrieden      zufrieden      weder noch      unzufrieden      sehr unzufrieden      keine Antwort

☐      ☐      ☐      ☐      ☐      ☐

**weiter**

Figure 5.8. Page 6 of online survey: Overall Job Satisfaction.



**Im Folgenden finden Sie Aussagen, welche sich zur Beschreibung Ihrer Person eignen könnten. Lesen Sie bitte jede dieser Aussagen aufmerksam durch und überlegen Sie, ob diese Aussage auf Sie zutrifft oder nicht.**

**Bitte lesen Sie jede Aussage genau durch und klicken Sie die Antwortoption an, die Ihre Sichtweise am besten ausdrückt.**

	sehr unzutreffend	eher unzutreffend	weder noch	eher zutreffend	sehr zutreffend
Ich akzeptiere Menschen so, wie sie sind.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich bin immer gut vorbereitet.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich habe häufig Stimmungsschwankungen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich arbeite nur so viel, wie ich muss.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich gewinne leicht Freunde.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich habe eine scharfe Zunge.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich fühle mich wohl, so wie ich bin.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich halte mich im Hintergrund.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	sehr unzutreffend	eher unzutreffend	weder noch	eher zutreffend	sehr zutreffend
Ich gerate leicht in Panik.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich vermeide philosophische Diskussionen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich mag Kunst nicht.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich beleidige Leute.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich mag mich selbst nicht.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich finde es schwierig, mit der Arbeit anzufangen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich erledige unangenehme Verpflichtungen sofort.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich weiss, wie ich Menschen für mich einnehmen kann.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 5.9. Page 7 of online survey: IPC-Questionnaire (Krampen, 1981).

	sehr unzutreffend	eher unzutreffend	weder noch	eher zutreffend	sehr zutreffend
Ich entziehe mich meinen Pflichten.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich kann andere "auseinandernehmen".	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich werde schnell unfreundlich.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich denke, dass Kunst wichtig ist.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich bin oft völlig am Ende.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich bringe Gespräche auf ein höheres Niveau.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich mag es nicht, Aufmerksamkeit auf mich zu ziehen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich führe meine Pläne meistens aus.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	sehr unzutreffend	eher unzutreffend	weder noch	eher zutreffend	sehr zutreffend
Ich gehe nicht gerne zu Kunstausstellungen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Abstrakte Ideen interessieren mich nicht.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich habe für jeden ein nettes Wort übrig.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich rede nicht viel.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich fühle mich selten niedergeschlagen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich fühle mich wohl, wenn ich unter Menschen bin.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich tendiere zu einer konservativen politischen Einstellung.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich respektiere andere.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	sehr unzutreffend	eher unzutreffend	weder noch	eher zutreffend	sehr zutreffend
Ich mache Pläne und halte mich daran.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich bin zufrieden mit mir selbst.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich tendiere zu einer alternativen politischen Einstellung.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich bin nicht gesprächig.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich bringe Dinge nicht zu Ende.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich glaube, dass andere gute Absichten haben.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich fühle mich oft niedergeschlagen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich bin der Stimmungsmacher auf Partys.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[weiter](#)

Figure 5.10. Page 7 of online survey: IPC-Questionnaire (Krampen, 1981) (continued).

Sie haben den Fragebogen nun fertig ausgefüllt.

**Ich bedanke mich ganz herzlich für Ihre Mitarbeit!**

Im folgenden finden Sie meine Anschrift, Telefonnummer und E-Mail-Adresse für den Fall, dass Sie Fragen haben:

Dipl.-Psych. Tobias Heilmann

Universität Zürich  
Psychologisches Institut  
Sozial- und Wirtschaftspsychologie  
Rämistrasse 62  
CH-8001 Zürich

Tel.: +41-44-634-4127

E-Mail: [t.heilmann@psychologie.unizh.ch](mailto:t.heilmann@psychologie.unizh.ch)

Fenster schließen

*Figure 5.11.* Page 8 of online survey: Thanks for participation and contact information.

### Appendix to Chapter 3


#### *Appendix C-1: Paper-Pencil Survey*

##### *Welcome and Introduction*

##### ***Liebe Teilnehmerin, lieber Teilnehmer***

Vielen Dank, dass Sie sich die Zeit nehmen, den folgenden Fragebogen zum Thema "Führung" zu beantworten. Das Ausfüllen des Fragebogens wird etwa 45 Minuten in Anspruch nehmen.

Bei den Fragen kommt es uns auf Ihre subjektiven Einschätzungen an, d.h. es gibt keine richtigen oder falschen Antworten. Uns interessiert nur Ihre persönliche Meinung. Bitte beantworten Sie alle Fragen zügig und vertrauen Sie dabei Ihrem spontanen Urteil. Wenn dennoch eine Aussage für Sie schwierig einzuschätzen erscheint, versuchen Sie diese bitte trotzdem zu beantworten oder wenden Sie sich an L. Lübbers.

- ◆ Bitte überlegen Sie nicht lange, sondern kreuzen Sie die Ihnen auf Anhieb richtig erscheinende Antwort an. 
- ◆ Bitte beantworten Sie jede Frage und überspringen Sie keine.

**Wichtig:**

- 1. Dieser Fragebogen ist anonym.** Es kann niemand hinterher herausfinden, welche Antworten von Ihnen stammen und welche von anderen Mitarbeitern und Mitarbeiterinnen.
- 2. Dieser Fragebogen hat keinen Einfluss auf Ihre Arbeit oder Ihre Anstellung.** Weil der Fragebogen anonym ist, kann kein Rückschluss auf Ihre Person gemacht werden. Weder Ihr Vorgesetzter noch eine andere Person von Ihrer Arbeit wird diesen Fragebogen sehen.
- 3. Dieser Fragebogen ist keine Prüfung.** Beim Antworten können Sie also nichts falsch machen

**Vielen Dank für's Mitmachen!**

*Demographics*

**Bitte beantworten Sie im Folgenden ein paar allgemeine Fragen zu Ihrer Person.  
Kreuzen Sie für den auf Sie zutreffenden Kreis an oder schreiben Sie die Antwort auf  
die Punkte-Linie „.....“.**

Bitte kreuzen Sie Ihr Geschlecht an.

☐ männlich  
☐ weiblich

---

Wie alt sind Sie?

..... Jahre alt

---

Ist deutsch Ihre Muttersprache?

☐ Ja  
☐ Nein

---

Wie gut schätzen Sie Ihre Sprachkenntnisse in  
Deutsch ein?

☐ sehr gut  
☐ gut  
☐ mittel  
☐ schlecht  
☐ sehr schlecht

---

Bitte geben Sie Ihre Nationalität an.

.....

- Welches ist Ihre höchste Ausbildung?
- ☐ Hauptschule/Volksschule
  - ☐ Realschule/Mittelschule
  - ☐ Gymnasium
  - ☐ Berufsausbildung mit Abitur
  - ☐ Fachspezifisches Abitur
  - ☐ POS ohne Abschluss (8. Klasse)
  - ☐ POS mit Abschluss (10. Klasse)
  - ☐ EOS mit Abschluss (12. Klasse)
  - ☐ andere Ausbildung: Welche?
- .....

---

Wie viele Jahre arbeiten Sie für die Semco  
Glasgruppe?

..... Jahre

In welchem Bereich arbeiten Sie?

- ☐ Sekretariat
- ☐ Buchhaltung
- ☐ Sachbearbeitung
- ☐ Aussendienst
- ☐ Innendienst
- ☐ Auftragsabwicklung
- ☐ Auftragsvorbereitung
- ☐ Auftragserfassung
- ☐ Technische Prüfung
- ☐ Materialdisposition
- ☐ Fakturierung
- ☐ Gestellverwaltung
- ☐ Produktion Isolierglas
- ☐ Schleiferei
- ☐ Versand (Packer, Fahrer)
- ☐ Farbbeschichtung
- ☐ Produktion ESG-Ofen
- ☐ anderer Arbeitsbereich: Welcher?  
.....

---

Wie viele Jahre arbeiten Sie bereits an Ihrem  
momentanen Arbeitsplatz?

..... Jahre

---

Wie viele Jahre arbeiten Sie bereits mit Ihrem  
direkten Vorgesetzten?

..... Jahre



Welche Führungsposition besetzt Ihr direkter  
Vorgesetzter?

- ☐ Schichtleiter
- ☐ Betriebsleiter
- ☐ Teamleiter
- ☐ Niederlassungsleiter
- ☐ Verkaufsleiter
- ☐ Produktionsleiter
- ☐ Geschäftsführer
- ☐ andere Führungsposition

Welche? .....

*Job Satisfaction*

**Es folgen Aussagen zu Ihrer Zufriedenheit mit Ihrer Arbeit und Ihrem Arbeitsumfeld. Bitte geben Sie den Grad Ihrer Zufriedenheit beziehungsweise Unzufriedenheit an, indem Sie den entsprechenden Kreis ankreuzen.**

	gar nicht zufrieden	nicht zufrieden	weder noch	zufrieden	voll und ganz zufrieden
Im Allgemeinen bin ich mit meiner Arbeitstätigkeit selbst (Inhalte, Variation etc.) ....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Im Allgemeinen bin ich mit meiner direkten Führungskraft ...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Im Allgemeinen bin ich mit den Möglichkeiten meiner Fortbildung, Entwicklung und Förderung ...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Im Allgemeinen bin ich mit dem Verhältnis zu meinen Kollegen in unserem Team / unserer Abteilung ...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Turnover Intentions*

**Bitte geben Sie an, wie sehr die folgenden zwei Aussagen auf Sie zutreffen.**

	trifft gar nicht zu	trifft eher nicht zu	weder noch	trifft eher zu	trifft völlig zu
Ich denke oft daran, zu kündigen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich habe vor, längerfristig in diesem Unternehmen zu bleiben und meine Karriere voranzutreiben / meinen Arbeitsplatz zu sichern.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Multifactor Leadership Questionnaire, MLQ Form 5X Short (Felfe & Goihl, 2002)*

**Im folgenden Teil des Fragebogens geht es um den Führungsstil Ihres direkten Vorgesetzten. Es sind Aussagen aufgelistet, die Ihren Vorgesetzten beschreiben. Schätzen Sie ein, wie häufig diese Aussagen auf Ihren Vorgesetzten zutreffen.**

**Bitte beantworten Sie alle Fragen zügig und vertrauen Sie dabei Ihrem spontanen Urteil.**

Die Person, die ich einschätze...	nie	selten	hin und wieder	oft	regelmässig, fast immer
...bietet im Gegenzug für meine Anstrengung ihre Hilfe an.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...überprüft stets aufs Neue, ob zentrale/wichtige Annahmen noch angemessen sind.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...versäumt es, sich um die Probleme zu kümmern, bis sie wirklich ernst geworden sind.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...konzentriert sich überwiegend auf Unregelmäßigkeiten, Fehler, Ausnahmen und Abweichungen von Vorschriften.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...versucht, sich nicht herauszuhalten, wenn wichtige Fragen anstehen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...spricht mit anderen über ihre wichtigsten Überzeugungen und Werte.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...ist immer da, wenn sie gebraucht wird.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...sucht bei der Lösung von Problemen nach unterschiedlichen Perspektiven.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Die Person, die ich einschätze...	nie	selten	hin und wieder	oft	regelmässig, fast immer
...äußert sich optimistisch über die Zukunft.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...macht mich stolz darauf, mit ihr zu tun zu haben.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...macht deutlich, wer für bestimmte Leistungen verantwortlich ist.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...wartet bis etwas schief gegangen ist, bevor sie etwas unternimmt.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...spricht mit Begeisterung über das, was erreicht werden soll.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...macht klar, wie wichtig es ist, sich 100%-ig für eine Sache einzusetzen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...verbringt Zeit mit Führung und damit, den Mitarbeitern etwas beizubringen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...spricht klar aus, was man erwarten kann, wenn die gesteckten Ziele erreicht worden sind.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...ist fest davon überzeugt, dass man ohne Not nichts ändern sollte.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...stellt die eigenen Interessen zurück, wenn es um das Wohl der Gruppe geht.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Die Person, die ich einschätze...	nie	selten	hin und wieder	oft	regelmässig, fast immer
...berücksichtigt meine Individualität und behandelt mich nicht nur als irgendeinen Mitarbeiter unter vielen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...vertritt die Ansicht, dass Probleme erst wiederholt auftreten müssen, bevor man handeln sollte.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...handelt in einer Weise, die bei mir Respekt erzeugt.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...kümmert sich in erster Linie um Fehler und Beschwerden.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...berücksichtigt die moralischen und ethischen Konsequenzen von Entscheidungen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...verfolgt alle Fehler konsequent.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...strahlt Stärke und Vertrauen aus.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...formuliert eine überzeugende Zukunftsvision.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...macht mich auf Fehler aufmerksam, damit die Anforderungen erfüllt werden.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...trifft schnell und ohne Zögern ihre Entscheidungen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Die Person, die ich einschätze...	nie	selten	hin und wieder	oft	regelmässig, fast immer
...erkennt meine individuellen Bedürfnisse, Fähigkeiten und Ziele.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...bringt mich dazu, Probleme aus verschiedenen Blickwinkeln zu betrachten.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...hilft mir, meine Stärken auszubauen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...schlägt neue Wege vor, wie Aufgaben/Aufträge bearbeitet werden können.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...klärt wichtige Fragen sofort.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...betont die Wichtigkeit von Teamgeist und einem gemeinsamen Aufgabenverständnis.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...zeigt Zufriedenheit, wenn andere die Erwartungen erfüllen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...hat großes Vertrauen, dass die gesteckten Ziele erreicht werden.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Success Criteria of MLQ 5X Short (Felfe & Goihl, 2002)*

Die Person, die ich einschätze...	nie	selten	hin und wieder	oft	regelmässig, fast immer
...setzt sich effektiv für meine (beruflichen) Bedürfnisse und Interessen ein.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...sorgt durch ihr Führungsverhalten für Zufriedenheit.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...bringt mich dazu, mehr zu schaffen als ursprünglich erwartet.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...kann meine Interessen gut bei höheren Vorgesetzten vertreten.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...gestaltet die Zusammenarbeit so, dass ich wirklich zufrieden bin.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...spornt mich an, erfolgreich zu sein.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...setzt sich effektiv für die Belange der Organisation ein.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...erhöht meine Bereitschaft, mich stärker anzustrengen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...kann eine Gruppe effektiv führen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



*German-Language Core Self-Evaluations Scale (Heilmann & Jonas, unpublished)*

**Im Folgenden finden sie einige Aussagen, denen sie vielleicht zustimmen oder nicht zustimmen. Geben sie ihren Grad an Zustimmung oder Ablehnung durch Ankreuzen des jeweiligen Kreises an.**

	Starke Ablehnung	Ablehnung	Neutral	Zustimmung	Starke Zustimmung
Ich bin zuversichtlich in meinem Leben das zu erreichen, was mir zusteht.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Manchmal fühle ich mich niedergeschlagen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wenn ich etwas anpacke, bin ich meistens erfolgreich.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Manchmal fühle ich mich wertlos, wenn mir etwas nicht gelingt.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich erledige Aufgaben erfolgreich.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Manchmal habe ich das Gefühl, dass mir die Arbeit über den Kopf wächst.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Im Grossen und Ganzen bin ich mit mir zufrieden.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich zweifle an meiner Kompetenz.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Starke Ablehnung	Ablehnung	Neutral	Zustimmung	Starke Zustimmung
Ich bestimme, was in meinem Leben passiert.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich glaube nicht daran, meine Karriere aktiv beeinflussen zu können.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich bin in der Lage, mit den meisten meiner Probleme fertig zu werden.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Es gibt Zeiten, in denen mir alles düster und hoffnungslos erscheint.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Haben Sie alle Fragen beantwortet?**

Wir danken Ihnen ganz herzlich für Ihre Mitarbeit!

## Curriculum Vitae

### Personal Details

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Contact                      Neunbrunnenstrasse 161  
                                  CH - 8050 Zürich  
                                  Tel.: + 41-43-5365720  
                                  Cell: + 41-78-7331207  
                                  E-mail: tobias\_heilmann@web.de

Date of Birth                07.02.1975

Place of Birth              Frankfurt/Main, Germany

### Education

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Since 10/2004            **University of Zurich**, Zurich  
                                  Division of Social and Business Psychology  
                                  Ph.D.student  
                                  Research Interests: Transformational Leadership, Performance,  
                                  Personality Traits

10/1997 – 10/2003      **Eberhard-Karls-Universität**, Tübingen, Germany  
                                  **Psychology (Diplom/Master, very good)**  
                                  Major: Work and Organizational Psychology  
                                  Minors: Clinical Psychology, Education Science  
                                  Masters' thesis: „Information Processing in Body Dysmorphic  
                                  Disorder: Global versus Local“

08/1995 – 07/1997      **JP Morgan GmbH**, Frankfurt/Main, Germany  
                                  Trainee-scheme („Bankausbildung“)  
                                  Involvement in Global Markets, M&A

1985 - 1994              **St. Lioba-Schule**, Bad Nauheim, Germany  
                                  University-entrance diploma („Abitur“)

### Job Experiences

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01/2007 – 02/2008      **PricewaterhouseCoopers AG**, Zurich  
                                  Project „Benchmark analyses of leadership and human capital“  
                                  Switzerland

06/2006-05/2007	<b>ALSTOM (Power) Schweiz AG</b> , Switzerland Middle Management Initiative, Workshops „Transformational Leadership“
10/2005	<b>ZF Friedrichshafen AG</b> , Friedrichshafen, Deutschland Management-Workshop for Trainees
11/2003 - 10/2004	<b>Itis GmbH</b> , Rottenburg/Neckar, Germany Consultant, Division „Implement Strategic Change“ Conception/involvement/preparation of tools for personnel development /personnel selection/conception/execution of a customer survey Acquisition
09/2001 - 10/2001	<b>Deutsche Bank AG</b> , Frankfurt/Main, Germany Internship, Corporate & Investment Banking – Global Relationship Management Germany, Marketing & Sales, Summer Internship Program Involvement in conception/execution of Campaign Management
08/2001	<b>Deutsche Bank AG</b> , Frankfurt/Main, Germany Internship Deutsche Bank University - School of Personal Effectiveness Support 360°-Feedback
03/2000 - 05/2000	<b>DaimlerChrysler AG</b> , Berlin, Germany Internship, Division of Research and Technology/ Consumer Acceptance and Analysis of Behavior; involvement in development of a customer loyalty model/questionnaire development and application; interviews within the scope of Customer Relationship Management
06/2001 - 07/2001	<b>Itis GmbH</b> , Rottenburg/Neckar, Germany Internship, Division „Implement Strategic Change“ – Key Accounts Acquisition/participant in projects/application marketing
06/1999 - 06/2000	<b>Fraunhofer Institut für Arbeitswirtschaft und Organisation</b> , Stuttgart, Germany Assistant at the Fraunhofer Institut für Arbeitswirtschaft und Organisation (institute for "Industrial Organization") Involvement in developing questionnaires/analysis/project reports
10/1999 -12/1999	<b>Eberhard-Karls-Universität</b> , Tübingen, Germany Assistant at the Department of Personality and Social Psychology Planning/ execution/data administration of research project
02/1998 - 04/1998	<b>JP Morgan GmbH</b> , Frankfurt/Main, Germany Internship Human Resources
07/1997 - 10/1997	Securities Settlements

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**Stay Abroad/Stipends**

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- 02/2003 - 10/2003    **Massachusetts General Hospital/Harvard Medical School,**  
Boston, USA  
Department of Psychiatry, OCD Clinic & Research Unit  
Master's Thesis within a research project  
Recipient of a scholarship from the German Academic Exchange  
Service („DAAD“)
- 09/2000 - 05/2001    **University of Massachusetts, Amherst, USA**  
Department of Psychology (Personality and Social)  
Graduate foreign exchange student  
One year full scholarship from the state Baden-Württemberg  
(Germany)

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**Language Skills**

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German: native  
English: fluent  
French: basic understanding

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**Computer Skills**

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Amos 5.0, Dreamweaver, Microsoft Office, SPSS, SYSTAT

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**Extracurricular Activities**

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Academic Society Igel, Business Psychology Network, Watches